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EDITED BY
CHARLES E. de M. SAJOUS, M.D.,
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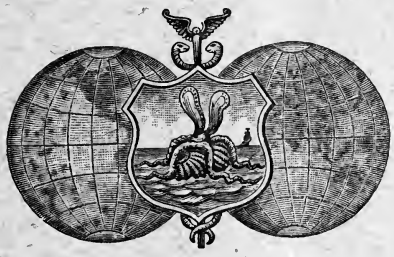

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Introduction.

THE medical profession has aptly been called "a kind of priesthood set apart and anointed for a peculiar and sacred function, to which belong, to a considerable extent, the issues of happiness and misery, of life and death, and in which unfaithfulness, either in promise or performance, is an offense not only against man, but against the Most High."

This lofty conception of his calling pervades the thoughts of every true physician, and its ennobling influence insinuates itself into his every act. Habitually cherishing such sentiments, he never yields to the temptation of idleness in the pursuit of progressive knowledge; he realizes that those who look to him for relief are entitled to the resources of medicine, not as they were, but as they are. If bodily ailment and loss of life are the greatest of worldly evils, how noble must that pursuit be whose purpose is to obviate them; how great is the responsibility of those who undertake its duties!

"How blest is he who knows no meaner strife
Than Art's long struggle with the foes of life!"

Oliver Wendell Holmes.

When, years ago, the perusal of old writings to resurrect methods buried in centuries of oblivion pointed rather to the superiority of the past than to the possibilities of the future, the medical man could easily satisfy the demands of his highest motives by the exercise of set practices learned from a revered master whose methods it were a sacrilege to modify. Let the result be what it might, *he* had exercised the maximum of his professional powers; reclining on his pillow of ignorance, he could, with composure, enjoy the peaceful slumbers of the just! But with the steadfastness characterizing the development of all things that are good, medicine, after centuries of preparation, gradually assumed new life. At first unperceived, its progress gradually grew apace until its strides were as far-reaching as its blessings were great. With its advances increased the responsibilities of its sponsors, until the blissful ignorance of the doctor of old gradually made way for the anxious scholar of modern times, whose professional duties and the life of his fellow-man are united by a sacred bond, the fabric of which is knowledge,—constantly-fed, unceasingly-replenished knowledge.

It was to adequately assist this legitimate practitioner that the ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES was started. Just ten years ago the first series of five volumes appeared. What its life-history has been need hardly be told; that over five hundred thousand volumes have been distributed in the United States alone sufficiently indicates the generous reception accorded it, while the encouragement given the editor, especially by his colleagues of the medical press, can but be recalled with

emotion. Indeed, in reading the many kindly expressions published each year concerning his arduous task, he was often reminded of R. L. Stevenson's lines:—

"The physician is the flower of our civilization, and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period and to have most notably exhibited the virtues of the race."

The last ten years, however, have been prolific in changes on every side. The intense activity displayed in all departments of medicine, the multiplicity of divisions and subdivisions in medical nomenclature, the ever-increasing value of time and the stringency of available pecuniary resources have greatly modified the circumstances surrounding a physician's existence and his needs. Although the ANNUAL had become a much appreciated work of reference for authors and teachers, the general practitioner, for whom it had been especially created, failed to find in its columns the kind of assistance he required. Often disappointed because every disease, or subdivision of a disease,—pathology, treatment, etc.,—could not be reviewed each year, owing to the fact that the subjects had not received the attention of writers, he condemned the work *in toto*, overlooking the origin of the omission. Again, he found the work too voluminous for current reading,—the very mass of progressive work appalled him!

A careful analysis of the whole question revealed the underlying cause of trouble,—namely, that articles made up of heterogeneous excerpts fail to excite interest and, as a result, soon fatigue the intellect of the reader. Whenever a new line of thought is introduced, the subject modified by the new point adduced must be recalled and former propositions tending to transform both the older and the newer conceptions of the subject must be simultaneously considered and, as it were, digested. That the sum of intellectual labor required, if the progressive feature advanced is at all to prove profitable, must be arduous, is evident; that such labor gradually engenders a disinclination to utilize the kind of literature involving it is a conclusion which deductive reasoning can but sustain. Briefly, the ANNUAL had made for itself a place among writers, teachers, and investigators, but, for the reason given, it had not satisfactorily fulfilled its mission among family physicians, for whose benefit it had been especially planned.

Overworked, overburdened, and often poorly paid, general practitioners, especially those exercising their calling in country-districts, share but little in the enjoyments of life. Harassed, ever anxious, their moments of respite are but opportunities for Nature, and, in enforcing her rights, she subdues functional activity to insure recuperation. In her way, therefore, she prepares their powers for the morrow and thereby contributes her share to their beneficent labors. But, we have seen, scientific progress also has its claims, and the sufferer is entitled to the resources of medicine, not as they *were*, but as they *are*. The duty of the medical editor, therefore, lies between Nature's requirements as regards the physician, and the claims of

justice as regards suffering humanity. Both, it is thought, may be subserved by presenting even scientific literature in an attractive, entertaining, easily-understood form, with professional dignity as a constant guide.

To forever tax the medical man with selections from the most intricate subdivisions of our scientific vocabulary is catering to a growing evil. Indeed, some papers remind one of a mist hovering around tree-tops: the trunks and lower branches—old and firmly implanted—are readily seen; the smaller branches and leaves—new and at the mercy of every breeze—are lost in haze. "Esoteric copy" might not be a misnomer for this kind of literature; once identified, it might be eschewed by medical editors, until lucidity have become a feature of the author's powers. Now that we are obtaining the main additions to our knowledge from the laboratory rather than from the bedside, a clearer enunciation would subserve the interests of readers and of authors as well, for much that the latter now do is forever buried in mist of their own creation. We have in the contributions of Osler a magnificent example of what an ideal medical literature could be—plain, concise, and unpretentious, but, withal, scientifically exact. His prose courts attention by its entertaining form and impresses the memory by the logical sequence of the ideas presented, without entailing further loss of that vital energy which the general practitioner needs so much to conserve.

These general principles have formed the basis of a modified work, the first volume of which is soon to be brought before the profession. Instead of presenting the excerpts from the year's literature arranged in order under a general head as before, each disease—including its subdivisions: "Etiology," "Pathology," "Treatment," etc.—is described *in extenso*, and the new features that the year has brought forth are inserted in their respective places in the text. In this manner the reader is saved all fatiguing study; he has before him what in the older work was left to his memory.

The work, when completed, will present all the general diseases described in text-books on practical subjects—medicine, surgery, therapeutics, obstetrics, etc.—and, inserted in their logical order in the text, all the progressive features of value presented during the last decade. This will remove the cause of dissatisfaction caused by the absence of general subjects in the older work. If the year brings forth nothing new upon any particular disease, the latter will, at least, appear as it was when last studied, whether this be one, two, five, or twenty years before.

While the general practitioner's needs will thus be adequately provided for, authors and teachers will not have to deplore the change. Instead of having at their disposal only the reviews of a single year, as before, they will have all those of value published during the last ten years. The article of "Abdominal Injuries," for instance, will contain 163 article excerpts besides the general text; that on "Appendicitis," over 300 references, etc. Being interpolated in the text and controversially arranged, the abstracts will either sustain the views advanced or indicate fields as yet insufficiently explored.

So great an amount of matter from different sources would seem to

insure a degree of confusion tending greatly to increase the reader's labors. This is avoided by using large type for the general text,—that is to say, the description of a disease,—and small type for the excerpts from journals. Either may thus be read separately. If, for instance, the reader desires to review the general subject, he has but to read the text in large type; if he wishes to analyze or study a disease, operative procedure, drug, etc., in which he is particularly interested, he has but to include the small-type text in his perusal of the article.

The companion publication of the new ANNUAL—THE MONTHLY CYCLOPÆDIA OF PRACTICAL MEDICINE, the continuation of the UNIVERSAL MEDICAL JOURNAL—is designed to play a much more important rôle than the latter did as an aid to the subscribers to the work. It will consist of forty pages of matter intended to portray, in an easily assimilated form, the practical suggestions embodied, first, in the literature of the previous year, and, second, in the current literature, the whole making up at the end of each year an additional volume of nearly 500 pages.

Books appearing periodically, as "annual" publications obviously do, only afford progressive information up to the time the work goes to press. Although the new work described is to be revised and brought up to date several times a year so that a physician purchasing it may always obtain a very recent edition, the fact nevertheless remains that editions cannot be purchased as fast as they appear. To enable the subscriber to keep constantly informed on the progress of medical science in the manner herein outlined and utilized for the larger work—easily understood text, logical sequence in the grouping of ideas, etc.— the MONTHLY CYCLOPÆDIA will be sent to him regularly without extra expense, for three years, if need be.

In the course of long rides through uninteresting streets, along country-roads, etc., the general practitioner frequently has available moments which he takes advantage of for the perusal of instructive literature. This liberates time for other portions of the day which he can utilize for purposes of recuperation and recreation. It was thought that if the MONTHLY CYCLOPÆDIA could be published in bold and clear type and made easily portable, this feature of his daily labors could be facilitated.

The MONTHLY CYCLOPÆDIA is subdivided into four sections. The first contains a series of reviews composed of some of the more important contributions of the year grouped in such a way as to introduce, when possible, controversial views. Such an arrangement, it was thought, would prove both instructive and readable. Each subject presented is only reviewed in part, however, and another issue may again treat the same question, but from another stand-point and with the assistance of different excerpts. The second section reviews questions thought by the editor to merit special attention, while the third contains brief reviews from the current literature which do not permit grouping, owing to their heterogeneous nature. Book reviews, etc., constitute the remainder of the new periodical, the first issue of which is respectfully submitted.

THE EDITOR.

THE

MONTHLY CYCLOPÆDIA

OF

PRACTICAL MEDICINE.

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Cyclopædia of the Year's Literature.

BERIBERI.

Diagnosis.—Vessels arriving from Brazil, Java, and other countries where the disease is endemic during the greater part of the time have always contributed a certain proportion of cases to the health reports of almost all the larger sea-ports. But isolated epidemics, traceable to no appreciable external source, have been, to say the least, rarely recognized in the English-speaking countries of Europe and America. Those that have occurred at the Richmond Insane Asylum of Dublin and in our own country at the Bryce Insane Hospital at Tuscaloosa, Ala., and at the Arkansas State Asylum, at Little Rock, have been thoroughly reviewed in the medical journals

and need not be described here; but important, in this connection, is the fact that doubt has recently been expressed as to the identity of the affection represented as beriberi in these several outbreaks. W. J. Buchanan,[1] of Buxar, India, for instance, mentions the "persistent epidemic of the disease grotesquely called beriberi in the Richmond Asylum, Dublin," and points to the article on that disease in "Quain's Dictionary of Medicine" as an evidence of the confusion existing on the subject.

That text-books, in general, furnish insufficient data upon this disease precisely as they do upon many other affections is illustrated by Dr. William B. Orne.[2] He gives the name of an important work in which the subject is dismissed in two short lines, which run thus: "Multiple neuritis also forms a part of leprosy and of the endemic disease of Japan: *Kak-ké*, or beriberi." Being on the high seas at the time and unable to obtain further information upon an obscure case before him, he rightly charges the life sacrificed to the inadequate description at his disposal.

Surgeon-Captain M. T. Yarr, in an interesting letter to the Lancet (Nov. 6, '97), describes his personal experience in the same direction in the following words: "In the year 1887 I was stationed in Hongkong, and after a residence of a few months in the colony was placed in charge of the Civil Hospital for a short time pending the arrival of a newly-appointed civil surgeon. A few days after I took charge of the hospital a Chinaman was admitted suffering from what I diagnosed as locomotor ataxy. I thought some of the symptoms were anomalous, but, on the whole, was satisfied with my diagnosis. A few days later I was hastily summoned to find the patient (whom I had seen fairly well the same morning) sitting up in bed, and with suffused face and starting eyes, gasping for breath; I had scarcely reached his bedside when he fell back dead. The necropsy showed only dilated heart. I attributed his death primarily to locomotor ataxy, and more immediately to paralysis of the right heart. Next morning the old Chinese ward-master, who had worked in the hospital for seventeen years, placed the blank death-certificate on my desk for signature. As I filled in the words 'locomotor ataxy' his impassive face lighted up and with the engaging candor of the Celestial employé he whispered in his pidgin English: '*My* tink that peecee man die of beriberi.'" John was right.

That these instances but illustrate errors committed in a large number of cases can easily be surmised. Beriberi, or, at least, a form of multiple neuritis bearing close analogy to it, must now be considered an affection of all latitudes, and not limited to the tropics. It merits adequate consideration in all works purporting to assist the practitioner in the exercise of his calling.

Dr. Buchanan,[3] who has spent a part of his life in India, recognizes that the co-existence of malarial cachexia with either beriberi or anchylostomiasis, as very frequently happens in tropical countries, renders an exact diagnosis sometimes difficult, and it is this fact which, in countries where malaria is very common, has stood so much in the way of clear ideas on the above diseases. He gives the following distinguishing features:—

In beriberi (endemic neuritis) we must look for the characteristic cardiac and nerve symptoms and the reaction of degeneration.

[1] Dublin Journal of the Med. Sciences, Dec., '97.
[2] Lancet, Nov. 6, '97.
[3] Dublin Journal of the Med. Sciences, Dec., '97.

In anchylostomiasis (parasitic anæmia) we must search for the worm after the exhibition of thymol, or else by microscopical examination of a portion of the excreta for the ova of the parasite.

In kala-azar (epidemic malarial fever), which is confined to Assam, we have the history of the sure and slow spread, and evidence of its infectiveness.

Another source of confusion is the relation borne by the different forms of neuritis to one another. Thus, "multiple neuritis," "peripheral neuritis," and "polyneuritis" are synonymous terms, and "alcoholic neuritis," "malarial neuritis," "syphilitic neuritis," "pseudotabes," etc., are all forms of multiple neuritis. Beriberi is also a variety of the latter, the endemic form.

Symptoms.—Two forms of beriberi are met with: the œdematous, sometimes termed the "wet," form, and the paralytic, or "dry," variety. The œdematous form is characterized by general anasarca, with the appearance of great anæmia. It usually begins with fever, which may be slight and intermittent. Œdema of the extremities then sets in, beginning usually over the dorsum of the foot and extending upward. As the serous effusion into the subcutaneous cellular tissue takes place, puffiness and numbness follow. A peculiar localized thickening of the tissues, or "solid œdema," is sometimes observed over the shin and in the thighs and chest. With the beginning œdema, cardiac symptoms are usually observed, this fact having caused some authors to attribute the effusions to the venous stasis resulting from dilatation of the right ventricle. The heart's action is irregular, rapid, palpitating, and frequent, the systole being somewhat increased in force and louder at the apex. Loud, blowing murmurs, resembling the *bruit de diable* of exophthalmic goitre, with violent pulsation of the blood-vessels in the neck, are present, as a rule.

Etiology.—Among the most probable etiological factors are the insanitary conditions incident upon overcrowding. In the Richmond Asylum, at Dublin, such a condition of things is said to have prevailed. It is probable that the infectious principle was introduced in contaminated food or clothing and that its continuance was sustained by the weakened resisting powers of the inmates. Much light is shed upon the question by the remarkable fact that in the Alabama asylum epidemic those attacked showed degenerative stigmata.

At the Dakar prison in Senegal, western Africa, the total number of prisoners under observation in 1895 was 647, of whom 52 were Europeans, the remainder being natives. The two classes lived under identical conditions; whereas no European or mulatto contracted beriberi, there were 45 cases among the aboriginals. Length of residence in the jail and want of occupation, together with overcrowding, defective ventilation, inadequate provisions for cleanliness, and the removal of filth were the chief determining causes. The affection generally commenced toward the third month of incarceration. Compulsory exercise was invariably followed by an amelioration of symptoms, but, if the patient remained in prison, a relapse ending fatally was sooner or later certain to supervene. Of twelve prisoners suffering from beriberi for whom pardon was asked in order that their lives might be saved, five were dead before the official release-documents reached Dakar three months later. The seven survivors were at once set at liberty, and eventually all of them recovered. That unhygienic conditions are an important factor, but that the chief cause of the disease is the

lack of suitable employment, is the conclusion reached by the medical officer of the Dakar prison, Dr. Lasnet.[1]

In the epidemic at the Alabama Bryce Asylum a most remarkable feature of the disease was exhibited in its peculiar distribution among the several classes of insane patients. Everyone of the 71 patients attacked was the subject of a psychical degenerative form of mental disorder. (See wood-cuts.) Dr. E. D. Bondurant,[2] who reports these cases, observed that, while some had previously suffered from chronic renal troubles or other impairment of health, it was, speaking generally, not the physically —but the mentally—enfeebled who fell victims to the disease. There were 80 epileptics in the hospital; of these, 32 had beriberi. The remaining 39 cases occurred in imbeciles, paranoiacs, and those terminal dements showing marked degenerative stigmata. No patient having an acute or curable form of insanity took the disease; no one of the 600 or 700 patients actively employed in work on the farm, shops, laundry, or elsewhere, was attacked; and no case occurred among the 200 employés of the institution.

Pathology.—W. K. Hunter[3] contributed a valuable study of two cases, including inoculation experiments, tending strongly to show that the staphylococcus of Pekelharing and Winkler is the specific micro-organism of beriberi.

Although Fiebig has argued that it has the same characters as staphylococcus pyogenes albus, and that it is the same organism, the pathogenic characters of the two are very different. The staphylococcus pyogenes albus injected into the abdominal cavity of a rabbit would produce septic results. In not one of six rabbits did an abscess form at the seat of inoculation, and in not one was any inflammatory condition of the peritoneum to be made out.

Treatment.—The obvious indication in this as in other forms of multiple neuritis is removal of the cause. In the cases seen by Bondurant[4] cathartics, especially calomel and magnesium sulphate, gave in many undoubted relief, diminishing the intoxication symptoms, as well as the œdematous effusions. For the relief of the pain morphine and coal-tar derivatives were employed, the former being found the most efficacious. Hot applications occasionally gave some relief. Quinine produced no visible effect in any instance. Heart-stimulants —digitalis, strophanthus, strychnine, etc. —were seemingly powerless to modify the cardiac weakness or distress, as were also the hypodermic injections of camphor used in a few cases. After the acute stage was passed tonics were used, and to aid in the restoration of function to paralyzed muscles electricity and massage were given quite generally, with probably some benefit.

We well recall the fact that in 1895 Domingos Freire found that strychnia, in gradually increasing doses until slight toxic phenomena are produced, is capable of bringing about a cure even when the paralysis is complete. The treatment is begun with $^1/_{60}$ grain, and the same quantity is added every third day until $^1/_6$ grain is taken. If the disease should return, the initial dose of $^1/_{60}$ grain should again begin the course of treatment.

INFLUENZA.

Symptoms.—Jasiewicz[5] describes a variety characterized by bilious vomiting.

[1] Archives de Méd. Navale et Coloniale, Feb., '97.
[2] N. Y. Med. Jour., Nov. 20, '97.
[3] Lancet, July 31, '97.
[4] New York Medical Journal, Nov. 27, '97.
[5] Jour. de Méd. de Paris, June 6, '97.

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TYPES OF DEGENERATES MOST LIABLE TO BERIBERI. (*Bondurant.*)

1. Imbecile, illustrating type of degenerate most liable to beriberi.
2. Paranoiac imbecile, illustrating type of degenerate most liable to beriberi.
3. Negro paranoiac, of a degenerate type which seemed especially susceptible to the poison of beriberi.

The onset is sudden, occasionally there is a chill. Bilious vomiting occurs early and is abundant and sometimes obstinate. There may be anorexia, flatulence, marked abdominal swelling, pains localized in the right iliac fossa, constipation, headache, and more or less profuse night-sweats.

Aural Complications.—W. P. Eagleton[1] states that of the cases of catarrhal otitis which so frequently complicate influenza, giving rise only to slight pain and transient deafness, little need be said, as they differ in no way from the simple cases, but the cases that go on to suppuration may present one of three conditions that are distinctive, all probably due to the direct influence of the presence of Pfeiffer's bacillus:—

1. Distinctive types of hæmorrhagic otitis.

2. Primary mastoiditis or periostitis before the involvement of the middle ear, due apparently to direct infection by the bacillus and not to extension from the naso-pharynx.

3. Rapid caries and necrosis of the ossicles or mastoid (of very frequent occurrence).

In addition there are minor points of difference from the simple cases, such as the greater severity of the pain and its longer duration, the more frequent persistence of the tinnitus, and the occasional serious involvement of the labyrinth after apparently slight affections of the middle ear.

There are three distinct forms of influenzal otitis with hæmorrhages into the membrana tympani, which, however, if properly treated, do not unfavorably affect the course of the disease, although the invasion is apt to be severe.

Gorman Bacon[2] observed that, as the usual antiphlogistic treatment is less efficacious in cases of influenzal otitis than in simple, uncomplicated cases, it is of the highest importance that a free incision should be made in the drum-head at the commencement of the disease, followed by frequent douching of the ear with antiseptic solutions. When the mastoid cells are involved, and the disease has not yielded to the treatment commonly used in such cases, it is advisable to perforate the mastoid at an early date, on account of the destructive nature of the secretion, which otherwise may lead to a rapid caries or necrosis.

Pregnancy.—Démelin,[3] in an article on influenza in its connection with pregnancy and confinement, states that, while some authors think that abortion is not more frequent from influenza than from any other cause, others believe the contrary. Ruffie, for instance, believes that grippe influences pregnancy in nearly the same proportion as cholera, small-pox, typhoid fever, and malarial fever, and that abortion is produced in 41 per cent., and premature confinement in 27 per cent. of cases of influenza. The hyperpyrexia, uterine hæmorrhage, rupture of the membranes, as a result of cough, have been rightly considered as etiological factors. It is especially after labor that it is important to recognize influenza and not mistake it for puerperal infection. Headache, chills, fever, collapse, nasal obstruction, cough, and normal or slightly elevated temperature are the prominent symptoms of a light attack of influenza. When the attack is more serious, however, in from three to five days a chill occurs, the temperature ranges from 102° to 104° F., and symptoms of an intense bronchitis, pneumonia, or broncho-pneumonia appear. Frequently at the end of three weeks

[1] N. Y. Med. Jour., Aug. 7, '97.
[2] Archives of Pediatrics, Sept., '97.
[3] Jour. des Prat., Oct. 24, '96.

there is general improvement and the patient seems to be recovering. This condition is generally deceptive, as the fever and the pulmonary symptoms return, continue for some weeks, and only gradually disappear.

Influence on Birth-rate.—Engel[1] calls attention to the fact that, during the 1890 influenzal epidemic, the number of births in Hungary were 41,866 less than during previous years, during the following three years; during September and October alone in 1890, there were 19,768 less children born than in the same months of other years. Mueller has previously expressed the opinion that a great proportion of influenzal cases also have affections of the genital organs, hæmorrhage from the uterus, usually associated with severe pain, being very frequently observed. Metrorrhagia may even follow amenorrhœa and disorders of the pelvic organs are likely to be accentuated; tumors increase in size with unusual rapidity and cystic disorders often appear. The author attributes these untoward effects to general hyperæmia, hæmorrhagic endometritis being the result.

Peripheral Neuritis.—Herman B. Allyn[2] says that the great majority of cases of multiple neuritis following influenza are, in reality, instances of peripheral neuritis: an intoxication of the nerve-trunks; this may be sufficient to produce rapid destruction of the nerve-fibres or just enough to cause pain by irritation. This is sustained by the fact that the salicylates are useful in these cases, owing to their power of promoting the elimination of some toxic agents. He concludes that: 1. Influenza, like other infectious diseases, may be followed by neuritis and multiple neuritis. 2. One sex does not seem to be more liable to multiple neuritis than the other. 3. It occurs most frequently between the twenty-fifth and forty-fifth years, and appears during convalescence in a few days or two or three weeks after the influenza has subsided. 4. It may present sensory, motor, vasomotor, or trophic symptoms, or all combined; but sensory and vasomotor symptoms are more prominent than in diphtheritic and some other causes of multiple neuritis.

The great majority of cases recover as regards restoration of function and power, as well as regards life. Five of the patients in Dr. Allyn's thirty-six cases referred to in his paper died. In one of Bruns's cases the symptoms resembled those of Landry's paralysis; in the other there was paralysis of the tongue and throat. In Eisenlohr's fatal cases there was general motor paralysis with intense hyperæsthesia of the skin. In Ferguson's case the neuritis was visceral and in Leyden's fatal case there was coincident diseases of the cord.

Pulmonary Complications.—A. Fraenkel,[3] among 272 cases of influenza treated in his clinic, found symptoms of broncho-pneumonia in 80, while 6 of these had pulmonary gangrene. He draws attention to the remarkable rapidity with which pulmonary gangrene and rupture into the pleural cavity may occur. In one case reported by Rhyner, symptoms of pneumonia appeared on the sixth day, and on the same evening the breath was fœtid; on the next day there was putrid expectoration. In two cases of his own putrid pleurisy appeared suddenly, and, in another, early in the disease. The empyema was quickly relieved by paracentesis, a large quantity of fœtid pus being evacuated. Recovery ensued in both. Dr. Fraenkel also states that

[1] Centralb. f. Gynäk., No. 24, '97.
[2] Jour. Amer. Med. Assoc., July 24, '97.
[3] Berliner klin. Woch., April 12, '97.

in influenzal pneumonia, which is characteristically lobar, the inflammatory process spreads from the bronchi to the alveolar passages and alveoli, the latter being densely and almost exclusively filled with leucocytes, which by their number not only insinuate themselves between the epithelial cells, but also cause a partial detachment of the epithelial lining.

Treatment.—Herman B. Allyn[1] states that the treatment should consist, first, in absolute rest in bed. Anodynes must be given in sufficient dose to relieve pain, when that is a prominent symptom. Morphine hypodermically may be necessary, but may often be replaced with advantage by codeine. The antipyretic anodynes are insufficient in any safe dose if the patient has pains for many days. The salicylate of cinchonidine is distinctly valuable, especially when the pain is not of the greatest intensity. At a later stage potassium iodide and the bichloride of mercury in small doses are helpful. When the pain is in an extremity, firm pressure with a flannel bandage gives great comfort. Blisters over the painful nerve-trunks; when they are superficial, are also valuable in relieving the pain.

Close watch must be kept on the action of the heart and the character of the breathing. In most of the fatal cases death is due to paralysis of the diaphragm. The closest attention must be given throughout the course of the case to the nutrition of the patient and to the condition of the skin, especially over portions of the body where pressure occurs. So far as possible, the stomach should be reserved for food. Medicine in these cases acts better when given hypodermically, and the stomach is not so likely to be deranged. This caution applies especially to the giving of anodynes.

Calomel.—In the form characterized by bilious vomiting, Jasiewicz[2] states that the most effective treatment should consist in the use of purgatives, preferably calomel.

Felsenthal[3] found that calomel administered before the third day after the onset of the disease cuts it short and prevents complications. When he sees the patient before the third day after the onset of the disease, he gives 3 grains in two doses to men, $2^1/_2$ grains in three doses to women, and to children $^1/_7$ grain for every year of their age. In from six to ten hours the temperature falls and all symptoms improve. Abundant diaphoresis is also encouraged by hot beverages.

Kryofin.—Bresler[4] tried kryofin as an antipyretic in 16 cases of influenza, in some of these antipyrin and phenacetin being also employed for comparison. Kryofin seemed more to prevent a rise of temperature than to cause reduction; if, therefore, a rise is expected, it may, as a rule, be forestalled. When this did not occur, antipyrin was also found ineffectual. In one case 15 grains of antipyrin acted more rapidly and persistently than half the quantity of kryofin, while 7 grains of phenacetin gave no results. The subjective condition was much improved by kyrofin, and diaphoresis was often induced. Bresler recommends $7^1/_2$-grain doses as an antipyretic and anti-influenzal remedy, which is to be preferred to equal quantities of antipyrin or phenacetin.

MALARIA.

Transmission.—Welch[5] states that at the present time there are only two the-

[1] Jour. Amer. Med. Assoc., July 24, '97.
[2] Jour de Méd. de Paris, June 6, '97.
[3] Revue Méd., Dec. 8, '97.
[4] Therap. Monats., Oct., '97.
[5] Johns Hopkins Hosp. Bull., March, '97.

ories as to the mode of transmission of malarial infection which are worthy of consideration,—namely, that it occurs aërially or by inoculation through the agency of suctorial insects. Laveran[1] argues that if the transmission of malaria is aërial only, there are certain localities close to sources of malaria the freedom of which from infection cannot be explained. Transmission by drinking-water he considers as more probable and he mentions the fact that malarious countries have been traversed with impunity by drinking only boiled water, while villages have witnessed the disappearance of fever as the result of a supply of pure water. He quotes the experiments of Marino, Leri, and Baccelli, however, to show that the theory of water-borne malaria is not altogether tenable.

According to Rupert Norton,[2] up to now the malarial parasite has not been discovered outside of the human body. All attempts to grow it on artificial media have failed, and its presence in water supposed to be malarial is not established. He refers to Celli and Marino, who have cited instances in which water from the Pontine marshes, notoriously malarious, had been drunk without causing any symptoms of the disease. Many cases, he thinks, especially those of a prolonged type, may be due to some autointoxication from the intestine.

Returning to Dr. Welch's remark, that the agency of suctorial insects was at present regarded as one mode of transmission, reference may be made to an anonymous writer[3] who had noticed a cottage perched upon the top of an ancient mammoth tombstone on the Appian Way near Rome. In this cottage dwelt an Italian peasant with his wife and little ones, who required the services of a ladder nearly twenty feet in length to reach their melancholy dwelling, located in that situation in virtue of a belief in those countries that persons dwelling in malarious regions are less likely to take malarial fever if they protect themselves from the bites of mosquitoes.

Two years ago Manson[4] produced in the human subject attacks of typical malaria by the imbibition of water inoculated from the bodies of mosquitoes which had bitten persons suffering at the time from malarial fever. Laveran[5] states that he has long thought that malaria was transmitted through the agency of the mosquito. Draining the soil causes mosquitoes to disappear, while the prevailing idea in Europe, that retiring with the window open or going out at certain hours in certain regions is dangerous, may be ascribed to the fact that these insects enter the rooms or are more active at night. He believes that they become contaminated by sucking the blood, and that once within the host the hæmatozoön undergoes a series of transformations, which enables it, on the death of the mosquito, to resist destructive agencies, and thus reach the human being, either by water or air.

Surgeon-Major Ronald Ross[6] also agrees with Manson in the belief that the mosquito acts as an alternate host, each species of parasite requiring for its propagation a special species of mosquito. If the latter be absent in a locality, though many other mosquitoes may be present, the parasite cannot exist there.

Dr. Bignami[7] conducted a series of experiments tending to show that mosquitoes are not transported by the wind to the extent generally supposed. The

[1] Presse Médicale, Jan. 20, '97.
[2] Johns Hopkins Hosp. Bull., March, '97.
[3] Modern Med. and Bac. Review, April, '97.
[4] British Med. Jour., Mar., '96.
[5] Presse Médicale, Jan., '97.
[6] British Med. Jour., Jan. 30, '97.
[7] Modern Med. and Bac. Review, April, '97.

insect avoids being carried off by strong winds by hiding in thick brush, grass, and trees. It is also nocturnal in its habits, always flies near the ground, especially around pools, all features fully fitted to thoroughly associate it with malarial agencies. It deposits its eggs in water or in damp places; from the eggs are hatched larvæ, which, very voracious, devour everything they encounter, among other things the bodies of the dead mosquitoes and the envelopes from which they have emerged. They then pass into the state of nymphæ, from which emerge the young mosquitoes. During this long period of life in damp soil or in water, and especially in the state of larvæ, they impregnate themselves with malarial germs. Only the female mosquito, however, attacks man.

These views are sustained by Ronald Ross,[1] whose experiments seem to confirm the views of Manson, that the flagella of the hæmatozoön are flagellated spores, intended for the continuance of the life of the parasite within some suctorial animal, and that the flagella arise from spheres, which, in turn, arise from the crescents.

Pathology.—Very interesting in this connection, and by far the most valuable work of the year, was a study of the process of fertilization in the malarial parasite. At the meeting of the British Association last August, W. G. MacCallum, of Baltimore, described observations made upon the malarial parasites of birds. His co-worker, Opie, had noticed two distinct adult forms of the halteridium of Labbé: one hyaline, non-staining form, and one granular, and taking on a comparatively dark stain with methylene-blue. He also believed that the hyaline form became flagellate, while the other did not. MacCallum confirmed these observations and observed that the hyaline forms alone became flagellate, while the granular forms were extruded from the corpuscles and lay quietly as spheres among the red cells in which they had previously been contained.

In a more recent paper[2] MacCallum reviews the results of his labors as follows:—

"Frequently in slides of the blood of infected crows there appear, after standing from twenty to thirty minutes, elongated motile forms such as were described by Danilewsky as vermiculi in his 'Parasitologie Comparée du Sang'; and in order to trace their origin it is necessary to observe closely the changes in the other forms seen in the blood. Only the mature forms of the organism are seen to undergo any changes in the fresh slide of blood, the half-grown and younger forms remaining unchanged for a long time. The mature forms become rounded off, and are extruded from the corpuscle, which remains as a shadow lying in the plasma.

"Both in the fresh and in the stained specimens of blood there can be seen differences which sharply distinguish two forms of the organisms. The forms are identical in outline, but the protoplasm of one is granular and opaque as compared with the clear hyaline protoplasm of the other. This distinction is well brought out in the stained specimen, in which the hyaline form remains almost entirely unstained, while the other takes on a well-marked blue stain with methylene-blue. Of these it can be determined that the hyaline forms alone become flagellated.

"These two forms, then, become extruded alike from the corpuscle and lie free in the plasma, but generally only a

[1] British Med. Jour., Jan. 30, '97.
[2] Lancet, Nov. 13, '97.

very short time elapses before the hyaline forms become flagellated, according to the process so often and so accurately described by workers on malaria. The granular forms lie quiet beside the nuclei and shadows of the red blood-corpuscles that lately contained them, but are soon seen to be approached by the flagella, which, having torn themselves away from the hyaline organism from whose protoplasm they were formed, struggle about among the corpuscles. These flagella, which so concentrate their protoplasm as to form a head, swarm about the granular spheres, and one of them plunges its head into the sphere and finally wriggles its whole body into that organism. Immediately on the entrance of this flagellum it seems to become impossible that another should enter, for they may be watched circling about, vainly beating their heads against the organism. The flagellum which has entered continues its activity for a few moments and the pigment of the organism is violently churned up. Soon it becomes quiet again, and remains so for from fifteen to twenty minutes, when a conical process begins to appear at one side of the organism, the pigment collecting mainly to the opposite side. This process grows larger and the pigment becomes more and more condensed, until finally we have a fusiform organism with a small spherical appendage crowded with pigment at one end. The other end is hyaline, and the pigment-granules which are not crowded into the small appendage are distributed superficially over the posterior part of the body. This spindle-shaped organism moves forward with a gliding motion, sometimes turning at the same time on its long axis, sometimes going through amœboid contortions. Red corpuscles lying in its path are either punctured by the hyaline anterior end, so that the hæmoglobin is enabled to escape into the plasma, or passed over and dragged along by the adhering posterior extremity.

"In an intense infection a great destruction of corpuscles occurs; thus in a fresh slide after standing some time even leucocytes may fall victims to the destructive force of these organisms, which have been seen to dash through them, scattering the granules into the plasma. As to the ultimate fate and true significance of these forms nothing definite can as yet be stated. In the slide they keep in motion for a long time, but finally quiet down and disintegrate. The idea suggests itself from their great power of penetration that they may be the resistant forms that escape from the body during life into the external world. The whole process described above seems to be a sexual process analogous to the sexual process seen in the lower animals and plants which occurs under unfavorable conditions and results in the formation of a resistant 'spore.'

"Recently I have examined the blood of a woman suffering from an infection with the æstivo-autumnal type of organism in which a great number of crescents were to be seen. These, in the freshly-made slide of blood, with very few exceptions, retained their crescentic shape for only a few minutes (this activity in the change of form varies greatly in specimens of blood from different patients). They soon drew themselves up, thus straightening out the curves of the crescent, while shortening themselves into the well-known ovoid form. After the lapse of from ten to twenty minutes most of them were quite round and extracorpuscular, the 'bib' lying beside them as a delicate circle or 'shadow of the red corpuscle.' After from twenty to twenty-five minutes certain of the

spherical forms became flagellated; others, and especially those in which the pigment formed a definite ring and was not diffused throughout the organisms, remaining quiet and did not become flagellated. The flagella broke from the flagellated forms and struggled about among the corpuscles, finally approaching the quiet spherical forms. One of them entered, agitating the pigment greatly, sometimes spinning the ring about; the remainder were unable to enter, but swarmed about, beating their heads against the wall of the organism. This occurred after from thirty-five to forty-five minutes. After the entrance of the flagellum the organism again became quiet and rather swelled; but, although in the two instances in which this process was traced the fertilized form was watched for a long time, no form analogous to the vermiculus was seen."

Diagnosis.—William Osler[1] states that north of Mason and Dixon's line physicians are prone to diagnose malaria for other diseases; south of the line they are more prone to diagnose other diseases for malaria; in both regions it is a source of greater errors in vital statistics than any other affection.

Referring to Osler's remark, J. F. Jenkins[2] observes there are many localities in his State (Michigan) as well as other States north of Mason and Dixon's line, where malarial fever still prevails, especially during the autumnal months, and that in these sections it is frequently found a difficult question to determine whether the patient has malarial fever or typhoid fever. Sporadic cases occurring in country-districts and very generally in villages are not infrequently diagnosed malarial fever, while the deaths reported to local boards of health under the name of malarial fever are, he thinks, usually due to typhoid fever.

An interesting diagnostic point noted by Dr. Jenkins is that in malarial fever the pulse-rate will not be very much increased by taking the patient suddenly from bed and placing him in the upright position, while in the incipient stage of enteric fever the pulse-rate is greatly increased by such a change of position. In the early stage of typhoid fever this alteration of position will frequently assist in determining the nature of the fever.

Bedford Brown,[3] of Alexandria, Virginia, also refers to a type of autumnal fever that appears annually between the 10th and 15th of August in Virginia, and continues until hard frost has set in, when it ceases as suddenly as it began. Some of the attacks present symptoms analogous to typhoid fever. The temperature-curve of this prolonged remittent type and that of typhoid fever are almost identical, while many of the prodromal symptoms are similar. There are, however, no iliac gurgling, no rose spots; no tympanites, but rather retraction of the abdomen; and no intestinal hæmorrhage. The only test is the recognition of the malarial parasite.

William Osler[4] states that a widened experience has only served to strengthen the conviction that, in the practical diagnosis of the infectious diseases, the discovery of the hæmatozoa of malaria by Laveran takes rank with the finding of the tuberculosis bacillus by Koch. The irregular types of malarial fever are remittent fevers, which simulate typhoid of certain pernicious types with special localization. The parasite is very scanty at first in the peripheral blood, and many

[1] Med. News, March 6, '97.
[2] Med. Record, Oct. 30, '97.
[3] Charlotte Med. Jour., Jan., '97.
[4] Med. News, March 6, '97.

slides may need to be examined before it is seen; in the end, however, the characteristic crescents are sure to be met with. Quinine checks this form in two to four days, if properly administered. Malaria with typhoid features is not uncommon.

In the course of a study of the malarial fevers in the District of Columbia, Dr. William B. French,[1] of Washington, examined one hundred and five cases of known and suspected infection, the ages of the patients ranging from one year to eighty-seven years, and in ninety-four the organism of malaria was found. In six cases pigmented leucocytes only and free pigment were observed, while in five cases the result was negative. A number of interesting conditions were seen in the blood at times. Phagocytosis was not uncommon. A few segmenting forms were met with, but more often their pigment clumps were found free or in the leucocytes. In a few instances two or three and in one case four ring-like forms were seen in one red cell. In all cases the blood was drawn from the lobe of the ear and used in its fresh state. Especially interesting is the fact that the author found two cases of pulmonary tuberculosis complicated by the presence of the malarial organism: the first of the kind he had met. Their blood showed crescents and free pigment-blocks in one and ring-like bodies in the other. Tubercle bacilli were found in the sputum of each.

A. R. Edwards[2] observed that the parasite in tropical types was smaller, while in the tertian they were as large or even larger than the red corpuscles of the blood. In the pernicious types the blood-corpuscles are shrunken, become darker, or completely decolorized, and transparent. Crescents are only found in the æstivo-autumnal cases. He argues that, while fever is a symptom of malarial infection, it is a conservative process, killing the parasites, phagocytosis being most marked during paroxysms.

Woldert[3] states that the forms of parasite present in the blood during the different stages of tertian, quartan, and æstivo-autumnal malarial fevers can easily be separated from one another by an examination. Quinine probably changes the type of the fever from the quotidian to the tertian by destroying one of the groups of organisms at the time of their segmentation.

Osler[4] observes that simple intermittents are characterized by a paroxysm, developing at the end of forty-eight hours, if a single group of parasites be present; if two groups exist, one of which matures every day, the paroxysms develop at the end of twenty-four hours. The blood shows hæmatozoa in all stages, and quinine causes their rapid disappearance.

Treatment.—E. C. Register[5] states that quinine is very imperfectly absorbed when given by the stomach and when the patient has a temperature of over 102°. In case of continued malarial fever, if distinct and well-marked intermissions of the fever are produced artificially by the use of antipyrin, antifebrin, and phenacetin, the crescentic and ring-shaped bodies will disappear after the administration of quinine as quickly as the spherical bodies that are found in an ordinary case of intermittent fever.

As is well-known, the blood-serum of animals naturally immune has no influence upon the course of malaria. A. Celli and F. S. Santori[6] experimented

[1] N. Y. Med. Jour., April 24, '97.
[2] Chicago Med. Record, Aug., '97.
[3] Med. News, Feb. 13, '97.
[4] Med. News, Mar. 6, '97.
[5] Atlanta Med. and Surg. Jour., Sept., '97.
[6] Centralb. f. Bakt., Parasit., u. Infr., Jan. 20, '97.

with serum of animals exposed to malarial infection: buffaloes, horses, etc., kept in the most malarial districts around Rome. Six persons treated with serum were subsequently inoculated with malarial blood; others were selected who were obliged to live in malarial districts. The first received 10 cubic centimetres subcutaneously, varying from 10 to 4 days. Three of those inoculated with blood from a quartan patient passed the longest incubation period observed without manifestations of the toxæmia. In the other three the blood of a case of marked æstivo-autumnal fever was injected, and simultaneously into a non-protected control subject. In the former, fever appeared 25 days after inoculation. In the latter, fever appeared in the control subject in 43 hours; in a man treated with buffalo in 30 hours; in one treated with horse-serum in 6 days; and in one treated with ox-serum in 17 days. The conclusion was reached, therefore, that preventive treatment with the serum of naturally immune animals exposed to malarial infection prolongs the incubation period of experimental malarial fever in man.

Cardamatis, of Athens,[1] states that methylene-blue should only be used in simple intermittent fevers, and that it would be dangerous to substitute it for quinine in the treatment of continued fevers and in grave cases. It is only indicated, when, for some cause, the use of quinine is contra-indicated, especially when, even in small doses, it produces hæmoglobinuria. The daily dose in the adult is from 9 to 15 grains; sometimes it produces a slight cystitis, that ceases when the drug is discontinued.

Prophylaxis.—Bedford Brown,[2] alluding to the form described by him, insists upon the necessity of drinking only distilled or sterilized water or water obtained from the deep Artesian wells. Quinine is of little use unless given in large doses (not in pill form), 50 grains being given within the thirty-six hours preceding a chill, in 10-grain doses, in the intermittent type. In severe attacks he adds 5 grains of phenacetin and 3 of acetanilid every two hours, and regards cold sponging as an excellent adjuvant to the quinine. In the prolonged form, 20 grains in quinine in three doses per day are sufficient. Nitroglycerin combined with quinine he found of great value in the pernicious variety.

MALARIAL HÆMATURIA.

Treatment.—The Therapeutic Gazette, in a review of "The American Text-book of Applied Therapeutics," does not coincide with Dr. Dawson, who recommends quinine in malarial hæmaturia, and the editorial writer is sustained by Dr. Tyson. In an article on the same subject J. W. Meek[3] reminds his readers of the fact that in the Therapeutic Gazette for July, '92, Dr. H. A. Hare had made an effort to collect the experience of medical men who had had to deal personally with this disease, and that, in reply to his inquiries, received the following information from physicians practicing in Texas, Mississippi, Georgia, and Alabama: Nineteen physicians, whom he classed as "inexperienced," regarded quinine as "useful" in this disease; but twenty-eight—"experienced"—regarded it "harmful." This is a decided majority of "experienced" clinicians against its utility. Dr. Meek suggests that those classified as inexperienced had doubtless based their opinion upon the teachings of text-books, and that experience with the malady changes the views of a large majority.

[1] Gazette des Hôp., April 15, '97.
[2] Charlotte Med. Jour., Jan., '97.
[3] Therap. Gaz., May 15, '97.

The views of Italian physicians are particularly valuable in this connection. Their great experience, owing to the numerous malarial districts of their country, added to their innate acumen, enables them to advance an authoritive opinion on the subject.

Baccelli[1] attributes hæmoglobinuria of malaria, not to the hæmoparasite, but to its toxins. Quinine may bring it on even in moderate doses. He recognizes four classes: (1) pernicious malaria with hæmoglobinuria cured by quinine; (2) mild attacks of malaria accompanied by hæmoglobinuria only when quinine is given; (3) hæmoglobinuria coming on in persons who have had malaria some time ago, and not associated with quinine; (4) hæmoglobinuria produced by small doses of quinine in persons who have had malaria previously. He advises continuing the quinine in spite of the hæmoglobinuria, if the malarial attack require it. He also recommends persulphate of iron and inhalations of oxygen.

More to the point are the views of Bastianelli,[2] who regards it as practically proved that hæmoglobinuria occurs only in infections with the æstivo-autumnal parasite. An interesting observation is that hæmoglobinuria following quinine is extremely rare in Italy, no case having ever been reported from the Campagna. The frequency with which these cases occur increases as one passes southward. Hæmoglobinuria due to quinine never occurs, excepting in patients who are suffering or who have recently suffered from malarial fever.

The hæmoglobinuric attack is produced every time quinine is administered, whether it be given while the malarial attack is in progress (Tomaselli) or whether it be given when the malarial infection has run its course (Murri). Extremely small doses are capable of bringing on an attack. Quinine hæmoglobinuria has been seen in patients who have already suffered from spontaneous hæmoglobinuria (Murri). The preceding malaria creates the fundamental disposition, the existing malaria the accidental disposition, and the quinine the provocative agent.

Quinine hæmoglobinuria is divided into two forms:—

1. That occurring during the paroxysm,—paroxysmal quinine hæmoglobinuria.

2. Postmalarial quinine hæmoglobinuria.

In these varieties quinine, through a very considerable length of time, will produce an hæmoglobinuria whenever administered. There are, however, instances where the hæmoglobinuria due to the taking of quinine occurs only now and then during the paroxysm. These cases are rare.

As regards treatment, Bastianelli argues that the course to be pursued depends upon the blood-examination. If hæmoglobinuria occurs during a malarial paroxysm and parasites are found in the blood, quinine should always be given. If, however, no parasites are found, either as a result of previous administration of quinine or on account of the spontaneous disappearance of the organisms, we may remember that the administration of quinine will have no effect upon this attack and that, for the time being, certainly another attack is not to be expected. In these cases Bastianelli considers quinine as contra-indicated owing to the possibility that the paroxysm may have been due to its previous administration.

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[1] Policlin. Jan. 15, '97.

[2] Le Emoglobinuria da Malaria, secondo i recenti Studi; Annali di Medicina, Anno ii, Fasc. xi, from an excellent review in the Amer. Jour. Med. Sciences, by Dr. Thayer.

If in an attack occurring in the middle of an ordinary malarial paroxysm there arises doubt as to its origin from quinine, it is well to abstain from the further administration of the remedy, for the quinine already given is usually sufficient to hinder the development of new febrile paroxysms. But, if, in an hæmoglobinuric attack which has come on after the giving of quinine, the parasites are still found in the blood, one is justified, despite the danger, in insisting upon the specific treatment; if there be doubt as to the origin from quinine, we may be sure what the result will be if we allow the parasites to go on developing, and it is, therefore, safer to interfere.

Dr. Meek, who, as already stated, objects, with other American authorities, to the use of quinine, recommends the following treatment: 1. Sodium hyposulphite in drachm doses every two hours until the patient is thoroughly purged; continued in smaller doses until the system is saturated with it. This is a stimulant to the hepatic secretion, causing, in large doses, an abundant biliary secretion; and is also a valuable intestinal antiseptic. He believes that free sulphurous acid is disengaged in the blood, and that this agent is an antizymotic to such an extent that it destroys the microorganisms that are the real cause of the disease, and thus arrests the process of corpuscular disintegration. 2. Morphine and atropine hypodermically, sufficient to quiet the stomach; and blisters over the epigastrium, if necessary. 3. An abundance of water to wash out the coagula that must necessarily accumulate in the urinary tubules after a hæmorrhage. Hot water or hot lemonade is frequently better borne by the stomach than cold. Cupping over the loins is also to be recommended. 4. A mild diet; fresh butter-milk is usually well borne, and also acts as a mild diuretic. 5. The patient should remain in a strictly recumbent position.

Malarial Retinal Hæmorrhage.—Closely associated with malarial hæmaturia, and capable, perhaps, of affording some light upon the latter, is retinal hæmorrhage. It will be remembered that last year a French army-surgeon, Dr. Bassères,[1] noted, among soldiers of the Madagascar expedition, twelve cases of this condition, in all of which the cause was undoubtedly malaria, the author believing himself justified in excluding albuminuria, cardiac diseases, and other conditions as etiological factors. The hæmorrhages occurred suddenly, without painful phenomena, either at the height of the attack or in the subsequent period of anæmia or cachexia; and in most of the patients the spleen was much enlarged. The site of the hæmorrhage was, in the majority of the cases, close to the disc, the macula being also affected in some cases. In five out of the twelve cases the lesion was unilateral, and there was usually more than one patch. The blood was absorbed rather rapidly, and, in the majority of the cases, great improvement in vision occurred simultaneously. The author attributed these hæmorrhages to parasitic thrombi, though the blood may have escaped through the wall.

TUBERCULOSIS OF THE LUNGS.

Etiology.—H. B. Weaver[2] argues that malnutrition is the starting-point of all tubercular processes. While the bacillus of Koch is, perhaps, the most important of the several microbes that influence the progress of the lesion in the various forms of the disease, yet it does not of itself originate the malady in any form.

[1] Arch. d'Oph., June, '96.
[2] Jour. Amer. Med. Assoc., Nov. 13, '97.

Both factors, the dyscrasia and the bacillus, must exist in combination before there can be tuberculosis. Defective nutrition, which may be general or acquired, is the fundamental primary factor, and Koch's bacillus, which is infective in its nature, is the modifying secondary factor in the causation of phthisis.

Diagnosis.—Cog-wheel inspiration is a valuable early sign of pulmonary tuberculosis, according to J. P. Arnold.[1] It was present in cases when there were no changes in the percussion-note or in the vocal resonance; when there was neither cough nor expectoration. While it is true that this peculiar form of inspiration may be caused by other conditions than that of beginning tuberculosis, its occurrence immediately below the clavicle, especially on the left side, should always arouse suspicion, especially where there is an hereditary tendency, history of exposure to infection, or any progressive failure of health and strength without other assignable cause.

The application of tuberculin to suspected cases will often throw much needed light upon them, enabling the physician to reach a positive conclusion, and in the opinion of E. L. Trudeau[2] will give the patient all the chances of recovery that lie in the detection of the disease at such an early stage: before extensive lesions have developed or secondary infection has occurred. In view of the demonstrated accuracy of this text when applied to cattle and to other animals artificially inoculated in the course of laboratory research, where its correctness can be controlled by autopsy, the author considers it as remarkable that a method which has proved itself so generally reliable in detecting the disease in animals, and which offered such possibilities as a diagnostic agent when applied to man, should have been so almost universally neglected and generally condemned on scant evidence as utterly worthless and dangerous. While its beneficial influence as a therapeutic agent could be exercised only within certain very restricted limits, its undoubted diagnostic value steadily became more and more evident in the light of a slowly accumulating experience in its use.

Vetlesen[3] recommends the use of iodide of potassium in the diagnosis of phthisis. One tablespoonful of a 1½-percent. solution given three times a day, causes the appearance of râles exactly limited to the portion of the lung where tubercular lesions are wont to appear. He describes 27 cases, 8 of which showed the sign mentioned besides cough and expectoration. In all these 8 cases the diagnosis of tuberculosis was verified. The remaining 19 cases were not influenced by the iodide, and two years later had shown no evidence of tuberculosis.

Bergonié traces the outlines of the viscera, as ascertained by the ordinary methods, on the skin, and again traces them in the dark on the lines shown by the fluoroscope. Disen[4] adopted the same method by fixing a copper wire, bent to represent the outline of the heart, on the chest-wall, and then examining the patient with the fluoroscope.

Mark J. Knepp[5] calls attention to a peculiar formation of the head in tuberculous subjects. This may either be flat from side to side or be somewhat triangular in form, the base corresponding to the occipital bones. The author states that in several hundred cases seen, he found the association of a plano-parietal head a most trustworthy symptom of

[1] Med. News, Mar. 20, '97.
[2] Med. News, May 29, '97.
[3] Lyon Méd., Dec. 5, '97.
[4] Med. Record, Jan. 9, '97.
[5] Med. Record, Aug. 21, '97.

tuberculosis, not only of the lungs, but of any other organ.

Treatment.—Creasote.—E. Lemoine[1] gives indications and contra-indications for the employment of creasote. He states that this drug should not be given in all cases as soon as the signs of pulmonary phthisis are recognized, as is the general custom. Creasote should not be employed on the supposition that as an antiseptic it will destroy the tubercle bacillus in the body. The solution required to produce this effect would also be strong enough to kill the person. The effect to be produced by creasote is to develop an inflammation around the diseased centres: one, indeed, calculated to exert a stimulation favorable to the vitality of the animal cells. The object should be not only to determine the cases in which creasote is indicated, but to graduate the doses so as to limit the inflammatory phenomena which it always produces around the disease-centres. If the patient has some deficiency of resonance over a restricted area, with harsh respiration in this situation, prolonged expiration, but no râles; if he has never had hæmoptysis, and has no fever; if his general condition is fairly good, he is getting thinner, and his appetite is bad, creasote can be given: first, because, apparently, there is no peritubercular inflammation; and, second, because, from the wasting, we gather the thought that the tuberculosis is advancing. If, however, in addition to the signs mentioned above, we hear subcrepitant râles around the zone of induration—manifestly indicating that there is peritubercular inflammation—and if the patient has fever, however slight, the employment of creasote is contra-indicated.

Briefly, creasote should not be given to a patient with fever or signs of congestion (inflammation), nor with wasting, loss of appetite, nor long-continued hectic. It may be given when there is no fever, or only the slight fever of suppuration, as during the formation of cavities. It should not be given, also, when there is repeated hæmoptysis.

Clifford Beale[2] recommends, as the least objectionable method to administer the drug, that pure beech-wood creasote be dissolved in codliver-oil, beginning with 3 or 5 minims, the same amount being added to the previous dose every alternate day until a maximum of 160 or 180 minims per diem is reached. The results obtained were highly satisfactory.

Chaplin and Tunnicliffe[3] speak in high terms of guaiacolate of piperidine as a substitute for creasote. The former not only possesses antiseptic power, but it also contains a constituent which possesses a nervine and vascular tonic action. When given hypodermically, it slows the heart, raises the blood-pressure, and greatly increases reflex excitability, and should, therefore, be regarded as a cardiovascular tonic and spinal stimulant. Fourteen cases, chosen at haphazard, were given, at first, 5 grains, three times a day, then gradually increased to 20 or 25 grains three times a day. It causes no unpleasant effects, is exceedingly well-borne by the stomach, and improves the appetite and general strength.

According to St. Clair Thomson,[4] in Dettweiler's sanitarium, at Falkenstein, creasote has been given a thorough trial, and has now been completely abandoned along with tuberculin and all other specific remedies. General dietetic and hygienic influences the only remedies relied on. Before attributing any virtue to the creasote it would be neces-

[1] Le Nord Méd., Sept. 15, '97.
[2] Lancet, Oct. 30, '97.
[3] British Med. Jour., Jan. 16, '97.
[4] Lancet, Oct. 30, '97.

sary to see the results obtained in an equal number of similar cases treated in exactly the same way, but with the creasote omitted.

Fisk[1] also emphasizes the uselessness of drugs in cases of phthisis, as the digestion should, under no circumstances, be compromised. He has often seen a patient take many drugs and fail rapidly, owing to anorexia and indigestion, who immediately began to improve when the digestive track was cleared by the use of calomel and the use of internal remedies ceased.

H. B. Weaver[2] considers hæmotherapy, pure bullock's blood, or animal or vegetable nucleins, introduced through any part of the alimentary tract as the rational procedure in the treatment of tuberculosis.

Yeast-nucleinic Acid.—Victor Vaughan[3] reports the results with nucleinic acid in 76 cases of tuberculosis treated from May, 1893, to December, 1895. Tubercle bacilli were found in all, and many were in the last stages of the disease. Of the 76 cases, 70 were cases of pulmonary tuberculosis. Of these, 30 died. Of these last, 9 were temporarily benefited. Of the 70 pulmonary cases the author says: "Seventeen have been continuously free from the bacillus for from one month to two and a half years, so far as can be determined from the sputum,—*i. e.*, either there has been during this time no sputum to examine or that examined has failed to reveal the bacillus. To the best of my knowledge, another has been free from the bacillus for more than a year, and another has been free from the bacillus with the exception of a short time, and still another was free when last examined. Twenty were still infected at the last examination. Of these, 16 have been apparently improved by the treatment. It should be stated that none of these were hospital cases. I was not able to control their diet. Most of them were not rich, and had only inexpensive food. The hygienic conditions under which many of them have lived have not been satisfactory."

Of the 5 cases of urinary tuberculosis, 4 were apparently cured. One was temporarily benefited, but developed acute miliary tuberculosis and died. The 1 case of joint tuberculosis was benefited.

Concerning the value of 1-per-cent. solutions of yeast-nucleinic acid administered daily in doses from 60 to 80 minims hypodermically, the author concludes that:—

1. In advanced stages of the disease, in which the area of involvement is great, with or without cavities, the best that can be expected from this treatment is temporary improvement. Even this does not occur in all cases.

2. In initial cases, when the area of infection is limited, this treatment may, and often does, not only arrest the progress of the disease, but it acts as a curative agent.

Roentgen Rays.—Chapteloube, Descomps, and Roullies[4] referred to the case of a woman, aged 22, suffering from acute and rapidly spreading pulmonary tuberculosis treated by X-rays. There was a cavity at the right apex, the whole right lung was infiltrated, there was generalized extension to the left lung, and the sputum was filled with tubercle bacilli. All medicines were left off, and the X-rays substituted. At the eighth application a crisis occurred, with fall of temperature; this, however, rose again. During the following month the rays

[1] Trans. Amer. Climatological Assoc., '97.
[2] Jour. Amer. Med. Assoc., Nov. 13, '97.
[3] Med. News, March 20, 27; Univ. Med. Mag., June, '97.
[4] Arch. d'Electricité Méd., May 5, '97.

were used from behind twice a day, resulting in a marked fibrosis of both lungs, diminution in cough and expectoration, and almost complete disappearance of tubercle bacilli. In thirty sittings the X-rays favorably influenced and almost healed lungs affected with acute tuberculosis.

NIGHT-SWEATS.—*Camphoric Acid.*—Camphoric acid is thought by Ralph Stockman[1] to act more powerfully than either atropine or agaricin in 15-grain doses. The tendency to excessive sweating seems to disappear. It is good also in non-tuberculous cases, although it has been stated that its usefulness is confined to the sweating of phthisis. The best plan is to give 30 grains at night two or three hours before the sweating begins, or in two doses at short intervals, in powder, capsules, or cachets; the alcoholic solution is very bitter. Its action is usually not very prolonged. According to H. A. Hare, of Philadelphia,[2] camphoric acid controls the sweats of tuberculosis in the great majority of cases, and does not produce any disagreeable symptoms, such as are usually caused by atropine or other powerful antisudorifics. No remedy has, in his opinion, so universally succeeded. Twenty grains are usually sufficient to control the sweat if given early enough to be absorbed before the time of the sweat is reached. Camphoric acid may be given in cachets, dissolved in whisky or brandy, or placed in dry powder on the tongue, and washed down with a little water or milk.

CLIMATIC TREATMENT.—Von Ziemssen recently stated that during the present century almost every year has brought with it a new remedy. All these have now been discarded, except two: tuberculin and climate. Tuberculin will often cure lupus, and iodoform tuberculosis of the joints; but as yet we have no specific for tuberculosis of the lungs. There only remains the climatic treatment. Fresh air and altitude bring about an excitation of the blood-making organs, but there are contra-indications to high altitudes. A tuberculous patient with fever should never be sent to a height; he will become worse. If the fever is due wholly to the presence of bronchitis or pleurisy, it does not act as a contra-indication. The best results, according to the author, are obtained when the patient is sent to a place near his own home, for a long journey is always depressing, and the comfort of seeing friends, especially to a sick man, is very great. The stage of the disease must be taken into consideration in deciding this matter. If the case is much advanced the patient should be kept as near home as possible.

Volland[3] introduces a timely warning when he says that now that it is taught in the German schools that tuberculosis can be cured by change of air and overfeeding, the greater number of consumptives will be treated by overfeeding when change of air is not available. The unfortunates will have double the amount of food required by a healthy man thrust into their alimentary canal. The disease must first undergo diminished activity before the appetite can return and an increased amount of nourishment be borne. Tuberculosis is not to be driven back by forced feeding. Rest is most important during activity of the disease. Instead of losing appetite by rest in bed, patients in Davos acquire a much improved appetite. In windy weather patients should remain in-doors.

According to Vivant,[4] the Mediterranean resorts offer the advantage over

[1] Edinburgh Med. Jour., Jan., '97.
[2] Therap. Gaz., March, '97.
[3] Therap. Monat., H. 6, June, '97.
[4] New York Medical Record, Sept. 11, '97.

the mountain that, with a superior solar radiation, they are less cold, permitting the patient to live in the open air continually in light, thin clothes, giving the air and light the best chance to exert their favorable therapeutic action.

The Riviera is losing ground as a resort for consumptives in the minds of those physicians who seek only to benefit their patients. The sun is hot and the shade is cold, constituting a dangerous contrast for weakened organisms. The "Mistral" of March and April equals the Roentgen rays in penetrating power. Algeria is far superior, and so is the southwest coast of France,—Arcachon, for instance.

Editorial.

TREATMENT OF CANCER BY INTERSTITIAL INJECTIONS OF ALCOHOL.

THE results obtained in a case of cancer of the naso-pharynx by a well-known clinician, Dr. Kuh, of Chicago, and the fact that the correctness of the diagnosis had been sustained by so competent an observer as Dr. Senn, add much weight to the evidence already collated in favor of alcohol as a curative agent.

The search for pathogenic micro-organisms, antitoxins, etc., has so captivated the attention of investigators during the last decade that remedial measures of a more prosaic kind have been relegated to a position well in the rear. Koch's tuberculin set the world aglow with anticipation; it had in its favor the enthusiasm of the hour. Had this agent been an extract of some commonplace variety of a generally known plant, crucial tests innumerable, with classical skepticism as a sponsor, would soon have chilled both discoverer and discovery; or, it might have passed unperceived and finally have found a resting-place where so many honest efforts are buried . . . . . in dust, on the shelf.

Such has been the fate of alcohol as a remedial agent in the treatment of cancer. Although many years have elapsed since attention was first called to its effects upon neoplastic tissues, no interest has been awakened and it lies practically dormant, awaiting its turn to enter the clinical arena. Are its claims sufficiently valid to merit thorough test by clinicians? It is safe to state that, if tuberculin had had to its credit but half of the *bona fide* points already noted in favor of alcohol in the treatment of cancer, it could have withstood the test of time.

Over twenty-five years ago Karl Schwalbe, having obtained satisfactory results from interstitial injections of alcohol in the treatment of benign growths, argued that if alcoholism could give rise to the formation of new connective tissue in the liver and thereby induce atrophy of the parenchyma, including its vascular supply, malignant tumors should yield to the direct action of alcohol in the same manner.

Hasse, of Nordhausen, after a careful analysis of the whole question, reached the conclusion that injections of alcohol around the base of the growth would suffice. A zone of new connective tissue would be formed; constriction of the blood-vessels and lymphatics would necessarily follow; and, the afferent and efferent channels being thus partially or entirely closed, the nutrition of the growth would cease, while the same mechanism would serve to close avenues for the passage of metastatic elements. His results verified the correctness of his views, and, of eighteen cases of carcinoma of the breast treated by him, fifteen were cured, the three cases lost being hopelessly advanced when the treatment was instituted. Recently[1] he showed that the method insured radical results by reporting the histories of three cases treated in 1878. Although nearly twenty years had elapsed up to the date of his paper, the persons treated were in perfect health, no recurrence having taken place. A connective-tissue capsule had formed around each growth, causing obliteration of the blood-vessels and contraction of the neoplastic tissues. In other directions, results were also met with tending to sustain the value of the method. Vulliet, of Geneva, used alcohol in advanced cases of uterine cancer and obtained marked relief, which he ascribed to the local ischæmia produced. In our country J. W. Young,[2] of Bloomfield, Ia., employed alcohol in various varieties of tumor. Rapid reduction of the size of the growths was produced; but he ascertained that, if too much alcohol were injected at one time, sloughing of the growth and general intoxication of the subject would follow. With ordinary caution, however, he was able to avoid these untoward effects by injecting 10 to 20 minims into one side of the tumor, then as much in another place, etc., this being continued until every part of the growth had become infiltrated by the alcohol.

An extremely interesting case has recently been reported, which not only adds considerable evidence to that already adduced, but also furnishes an opportunity for a profitable study of the whole question by deductive reasoning. The case was one of scirrhus of the breast treated by William Yeats.[3] The patient was a widow, aged 58 years, whose left breast was already twice as large as the right and ulcerated at the nipple. On February 20th, of a mixture of 40 parts of absolute alcohol and 60 parts of distilled water, 23 syringefuls, each of 20 minims, were injected deeply into the tissues round the tumor, and into the axilla in the neighborhood of the enlarged glands. The injections, averaging from 22 to 25 syringefuls each time, were repeated about every fifth day until May 2d. Each sitting occupied about three-fourths of an hour. The injected fluid had a great tendency to flow out again, but the author found that this could be obviated by smearing collodion over the needle-pricks. The patient experienced considerable pain, lasting from one-half to one

[1] Archiv für Pathol. Anat., B. 146, Nov. 4, '96.
[2] Charlotte Medical Journal, July, '95.
[3] British Medical Journal, Sept. 25, '97.

hour. After the second series of injections she declared that the sensations in the breast were altered, the shooting pains were no longer felt, while the itching on the surface of the mamma, which she had complained of, disappeared and never recurred. After the subsidence of the immediate painful effects of all the other injections, the patient felt more comfortable in every way. When the process had been continued for five weeks, the parts round the tumor began to be œdematous, but still the injections were continued into and beyond the œdematous parts. During the sixth week the patient and her nurse stated that they considered that the growth was smaller, and certainly at the beginning of the eighth week (April 11th) the whole breast, including the tumor, had diminished in size.

After this date, all the parts, breast and tumor, rapidly shrunk, until in May there was actually nothing left of the mamma to be felt by the hand, and practically nothing left of the tumor, but the nipple and slight thickening under it. There was still œdema in the injected area. The glands in the axilla could not be detected. At this time Mr. Windsor examined the case (May 12th) and stated "that whilst the right was a fairly large hanging breast, the other—the left breast—had practically disappeared, the nipple only remaining; that he did not find any thickening under the pectoralis nor enlarged glands in the axilla." After these seventeen injections, a complete structural change to all appearance having taken place, it was intended to continue the injections at longer intervals for a considerable time, but, unfortunately, the patient became ill otherwise. She lost her appetite, became slightly jaundiced, and on examining her on May 16th it was found she was suffering from cancer of the liver with ascites. This being the case, nothing further was done; the patient rapidly grew worse, and died on June 10th.

At the autopsy the mamma was found replaced by a dense, fibrous-looking mass with several processes extending into the surrounding fat and firmly connected with the subjacent pectoral muscles. The skin was rough, superficially ulcerated at one place, and adherent to the subjacent tissue round the nipple. The nipple was depressed, but not considerably retracted.

The first query that suggests itself brings into question the nature of the tumor. Hasse's cases were treated twenty years ago, when physicians were not habituated, as they are now, to the use of the microscope. Then, as now, enthusiasm sometimes warped the very best intentions. Vulliet's cases, however, were undoubtedly cancerous, their course demonstrating the correctness of the diagnosis. In Yeats's case examination of the mammary and hepatic tissues by Professor Delépine did not establish beyond doubt the identity of the neoplasm, as may be seen in the following report:—

"The cutis vera, subcutaneous tissue, and fat surrounding the mamma show distinct signs of proliferative inflammation of the connective-tissue elements and little infiltration with leucocytes.

"The tumor itself presents, in most places, the appearance of an atrophied scirrhous carcinoma,—that is, the epithelial cells are small, they do not fill the alveoli containing them, and the stroma is, generally speaking, abundant, and shows signs of great proliferative activity; the peri-acinous connective tissue shows, in a marked degree, the metamorphosis described as elastic degeneration. These signs of atrophy of epithelial elements and increase of connective-tissue stroma are not absolutely general, and in some parts the tumor still presents the appearances of a typical scirrhous carcinoma.

"The section of liver shows several confluent nodules of scirrhous carcinoma; very cellular, epithelial cells of the same type as those found in the mammary tumor; extensive tracts of necrosis; biliary pigmentation; and capsular hepatitis.

"In conclusion, I would suggest that the mammary tumor shows signs of marked irritation of the connective-tissue elements and atrophy of the epithelial cells, and that this may be fairly attributed in part to the action of the alcoholic injections, the similarity existing between the hepatic secondary growth and the primary mammary tumor throwing a certain amount of doubt over this conclusion."

Still, many points are adduced in the history of the case in favor of the view that a malignant growth was really present. Indeed, if to these are added the facies of the patient, the glandular involvement, the character of the ulceration, and the secondary involvement of the liver, another diagnosis is hardly warranted. But another factor must be introduced. Scirrhus may, as is well known, undergo spontaneous atrophy. Might a coincidence not have played an important rôle in the result reached? T. Carter Booth,[1] of Manchester, contributes a case showing to what degree scirrhus may spontaneously contract without apparent cause:—

The patient, a lady aged 69 years, when first seen, eight years before, presented the appearance of 60 years, with all her teeth, and in good health. The breasts were still large, but fleshy: the right normal, the left containing a mass the size of a walnut, not painful or but slightly so, except on pressure. The nipple was normal. No large glands were to be felt in the axilla. There was a vague recollection of a slight injury, but no other suspicious circumstance could be elicited except that, shortly before, her son had died of cancer of the tongue, two and three-fourths years after a supposed complete removal of the diseased organ. Moreover, both mother and son were of the type known to be prone to malignant neoplasms. The diagnosis of scirrhus was confirmed by Mr. G. A. Wright, who advised removal without delay. Operation was declined, and a speedy spread of the mischief anticipated. Whether, however, in spite of, or on account of, non-interference, no further change occurred, except gradual contraction of the breast and tumor, finally reaching the state observed by Dr. Yeats, including the retracted nipple. The atrophic process had

[1] British Medical Journal, Dec. 25, '97.

taken six years. Only after this, during the last year of her life, at the age of 76 years, did cachexia supervene, supplemented by marked emaciation, muscular weakness, anorexia, extreme sensitiveness to cold, and dryness of the skin (suggestive of diabetes: a suspicion not confirmed), but without enlargement of glands or evidence of deposit in the internal organs. This only occurred two months before death. She took to bed, and there appeared in the right loin, higher than the usual site of "decubitus," a hard mass the size of the palm, involving the skin, and gradually causing it to ulcerate into a foul, discharging sore. The breast, however, was now dry and contracted, and the glands were free. The new growth—situated, as it was, on the right side, quite apart from the original deposit—could be a terminal, but not a secondary, manifestation of the malignant habit of the patient. The case was, Dr. Booth thought, an undoubted atrophic scirrhus that had undergone changes similar to those described by Dr. Yeats, but with the difference that the spontaneous process required six years, whereas the injections of alcohol in Dr. Yeats's case had caused reduction in about ten weeks.

Granting that both cases were cancerous, deductive reasoning can but suggest that if, in ten weeks, the atrophic process induced corresponded to that effected by Nature's own resources in six years, the possibility of coincidence must be set aside. But may spontaneous atrophy not occur in less than six years? To justly interpret the case in point the question must be transformed into the following: Has ever a cancerous breast such as that described by Dr. Yeats become spontaneously atrophied in ten weeks? A negative answer need hardly be formulated, and the case certainly warrants the conclusion that as an agent capable of causing contraction of a malignant neoplasm alcohol is unequaled by any drug.

Going a step farther, we are brought to a case reported by Edwin J. Kuh,[1] of Chicago, the diagnosis of which was confirmed clinically by Senn, and furthermore by a microscopical examination which allows of no reasonable doubt. The case was one of primary cancer of the naso-pharynx in which the injection of unfiltered erysipelas-prodigiosus toxins had failed. In view of the inevitable fatal outcome, injections of alcohol were begun on October 14, 1896, with 3 minims of absolute alcohol, the dose being rapidly increased to 30 minims. The reduction in the size began after the seventh injection, and after the eleventh but few remnants of the growth remained. After a dozen more injections the needle would not penetrate into the tissues capable of retaining the alcohol, and after a few additional attempts, at intervals of a week or longer, they were discontinued. In February, 1897, the naso-pharynx was found, both by inspection and palpation, to be entirely free.

This case, added to the others described, establishes alcohol on a basis seldom equaled by any agent proposed. In order to obtain a successful result, however, the treatment must be carefully conducted.

[1] Medical Record, April 17, '97.

In the cases reported as cured by him, Hasse injected a mixture of 30 parts of absolute alcohol to 70 parts of water twice a week around the tumor, as well as into any infiltrated glands. The quantity injected varied according to the size of the neoplasm and sometimes reached 20 Pravaz syringefuls. The only inconvenience observed was pain and, occasionally, slight intoxication. In order to avoid making the injection into a blood-vessel Hasse inserted the syringe-needle deep into the tissues, then unfastened it, leaving the cannula in place. He then waited a moment; if the blood did not issue from the cannula he readapted the syringe and made the injection; but, if blood did flow out, he removed the needle and made another puncture elsewhere. Under the influence of these injections the tumor diminished in size and soon became less painful. The treatment should be continued for some time after apparent cure, at intervals more and more prolonged.

Pain seems to be the only untoward effect of the procedure. Local hypodermic injections of water are known to cause anæsthesia. This or some other local anæsthetics might be employed to obviate the only feature that might cause the sufferer to refuse assistance. General anæsthesia might even be resorted to for the first injections in sufficiently robust subjects until the treatment has itself reduced local tenderness.

The remarkable increase of cancer during the last half-century need hardly be emphasized. The nature of the affection sufficiently sustains an earnest plea that alcohol be given the faithful trial it seems to merit.

Charles E. de M. Sajous,
Philadelphia.

The Philadelphia Medical Journal.

The beginning of the year brought forth a new journal, and one which any editor can consider as a valuable acquisition to his exchange list. This means much, for it implies all the other qualities which a standard weekly should possess. As to scientific worth, the first issue contains articles by the crowned heads—not merely the princes—of our profession: Da Costa, Osler, Senn, Keen, and others. As to completeness, the first issue contains thirty-six pages of compact text, while the fact that Dr. George M. Gould is the Chief-Editor affords a guarantee that these pages must be replete with valuable information on all subjects.

The journal is under the business management of a board of trustees, in which our profession is represented by some of its best members—Drs. William Pepper, Weir Mitchell, James Tyson, John B. Roberts, T. G. Roddick (of Montreal), James C. Wilson, and others—who have mainly in view the dissemination of knowledge and scientific progress. All physicians should welcome The Philadelphia Medical Journal and give it their hearty support.

Cyclopædia of Current Literature.

ABDOMINAL INJURIES.

Diagnosis.—In contusion, narrow bodies, the action of which is exerted on a small area, reach more deeply by overcoming resistance of the abdominal parietes more easily than larger bodies. The resistance varies with the age, state of obesity, and state of relaxation or contraction of the muscles. The direction of the blow is of importance. If perpendicular to the deeper structures, it is most harmful; when parallel, it tends to glide off; when oblique, the force is modified. Demons (British Medical Journal, Nov. 27, '97).

Treatment.—Hyperæsthesia of the abdomen after injury is an indication for operation. An increase in the respirations to twenty-eight or thirty per minute makes the indication absolute. Cold extremities are also significant. Le Dentu (Le Progrès Méd., Oct. 27, '97).

The surgeon, when confronted with gunshot wounds penetrating the abdomen, ought immediately to perform laparotomy, and look out for the various perforations of the viscera to see if he can close them, without waiting till peritonitis arises to force his hand. Chauvel (Lancet, Oct. 2, '97).

Abdominal section is the only treatment to apply in contusions of the abdomen. It has been sufficiently demonstrated that the symptoms are not an adequate index of the gravity of the lesion or lesions; and, if we cannot tell what the injuries are, the only thing to do is to investigate. Mendy found that in 289 cases of contusion from the kick of a horse, 30 per cent. of the non-operated patients died; and also 71 per cent. of those operated upon. These figures have no value; for, in many instances, no details were given, and in 18 out of 25 fatal operative cases peritonitis was already established. Of the writer's cases, 20 in all, 14 of the patients were operated upon, with 2 deaths, while, of the 6 not operated upon, 2 died. Michaux (French Congress of Surgery; Medical News, Nov. 27, '97).

ABORTION.

Diagnosis.—Spurious abortion. This is a disorder in which a mimicry of early pregnancy and of abortion occurs, quite different in its characters from the condition knows as "spurious pregnancy." The condition is not associated with hysteria, and the usual functional disturbances of pregnancy are not exaggerated. It differs from pseudocyesis in the existence of definite changes in the uterus, and from pregnancy, either topic or ectopic, in the essential point of the absence of an ovum. It is a mimic abortion in which there is a period of amenorrhœa with enlargement of the uterus and formation within it of a body, the detachment and expulsion of which is followed by a return to menstrual regularity and the former condition of general health. The body expelled is not an ovum, but is formed entirely from menstrual structures. The membrane presents the essential characters of the decidua of pregnancy. The diagnosis is impossible until after the discharge of the cast. The author records three cases.

T. W. Eden (London Lancet, Sept. 25, '97).

Treatment.—When intervention is necessary, "instead of the curette I simply use my finger, which is a marvelous instrument for one possessed of intelligence, while the curette is a blind instrument which I only use when there is hæmorrhage or infection." For intrauterine injections a solution of permanganate of potassium is recommended. Tarnier (L'Union Médicale du Canada, Nov., '97).

To use the finger as a curette is, in most cases, unsatisfactory, even when one hand is used for pressing the fundus down. The finger is often arrested at the internal os or does not reach the uppermost part of the cavity, and, at all events, it can only be used to separate the ovum from the uterus, and cannot remove the decidua vera. Henry J. Garrigues (Medical News, Nov. 6, '97).

ACNE.

Treatment.—In relapsing acne, soap is a skin irritant; its use is entirely out of harmony with a sedative treatment. Equal parts of pusol and dimatos form a powder of considerable curative value. In a week or two the skin will be sufficiently quiescent to justify more stimulative therapeutic measures. Here any of the usual sulphur ointments may be employed, but the application should at first be cautious and at intervals only; or, better, an ointment containing 1½ drachms of pusol to 1 ounce of vaselin may be employed. This is rubbed in at night, while the face is dressed with the above-mentioned powder in the daytime. Leslie Phillips (British Medical Journal, Sept. 25, '97).

ACROMEGALY.

Pathology.—Case of acromegaly in which necropsy showed that the skull was uniformly thickened and heavy, and all the air-spaces were dilated. The sella Turcica was deep and wide, and the pituitary body was converted into a cyst containing semifluid substance. Percy Furnivall (Lancet, Nov. 6, '97).

Analysis of 34 recorded necropsies of cases of acromegaly: changes in the pituitary gland had been found in all; in all but three there had been either hypertrophy or tumor. The thyroid gland was examined in 24 cases and was normal in only 5, and hypertrophied in more than half. The thymus was examined in 17 cases: it was absent in 7, hypertrophied in 3, and persistent in 7. The sympathetic ganglia were examined in 10 cases; reported as hypertrophied in 6. The only constant associated changes appeared to be those in the pituitary body; these changes were not uniform and might occur without acromegaly. Percy Furnivall (Lancet, Nov. 6, '97).

Case in which, besides other typical symptoms, the cartilages of the nose and ears were greatly thickened, and probably those of the larynx, as his voice had altered of late to a deep bass. The skin of the face was slightly pigmented and the orifices of the sweat-glands enlarged. The tongue was enlarged enormously and the tonsils and uvula also. Difficulty in swallowing at times and slight asthmatic seizures. John N. d'Esterre (British Medical Journal, Dec. 4, '97).

AMENORRHŒA.

Etiology.—Case of absolute amenorrhœa in a married woman 26 years old. The external os was patulous, and a probe entered the canal of the uterus a distance of 4.7 centimetres. After traction on the cervix and using slight force, the point of the probe passed a tight constriction a farther distance of 1 centimetre, making the total uterine

depth 5.7 centimetres, or 2¼ inches. Examination showed evidences of an old, inflammatory process about the tubes and ovaries, resulting presumably in atrophy of the ovaries, chronic inflammation of the tubes, and stenosis of the uterine canal, besides anchoring the uterus in a pathological position in the pelvis. History of varioloid, severe fall, and hereditary tuberculosis. W. L. Burrage (Boston Medical and Surgical Journal, Oct. 14, '97).

ANTHRAX.

Pathology. — No immunizing substances found in the blood either of animals treated with Pasteur's vaccine or of those who had passed through an attack of anthrax. In animals treated for weeks and months with increasing doses of virulent anthrax cultures so that an active immunity is acquired, such protective substances are present in the blood. The serum obtained from a sheep thus treated conveyed a certain degree of immunity when injected into rabbits. Attempts at cure of the disease in rabbits were without effect. In 2 out of 7 sheep in which 100 to 150 cubic centimetres of normal serum from a lamb were first injected, then a small quantity of a virulent anthrax culture, both animals succumbed. Three other animals were given a single dose (50, 100, and 200 cubic centimetres of serum), and later a virulent anthrax culture. All these animals recovered. The sixth and seventh animals were also injected with smaller virulent cultures; later with anthrax serum. Both recovered. Sobernheim (Berliner klinische Wochenschrift, Oct. 18, '97).

APOCYNUM CANNABINUM.

The action of apocynum greatly resembles that of digitalis. It is not cumulative, however, as shown by Glinski. "Apocynum properly administered is a very remarkable diuretic. Doubtless it acts indirectly by increasing the arterial pressure, but it must also be a direct renal stimulant, and cause dilatation of the renal arterioles. So far as I know, this has not been demonstrated, but the effects point to such a mode of action. Its influence is best seen in those general effusions that depend upon a want of vascular tone, and, whatever the reason, the empirical fact remains that most remarkable results have followed its use." A. A. Woodhull (British Medical Journal, Dec. 11, '97).

BLEPHARITIS.

Treatment.—The best results are obtained with a solution consisting of hydrogen dioxide and water, equal parts. This accomplishes the desired result and does not pain the eye. It is to be applied with a bit of absorbent cotton, dipped into the dioxide solution and rubbed along the lashes. This should be kept up until the specific oxidizing effect is seen on the scales or crusts, as will be evidenced by the bubbles. The edges of the crusts will begin to separate. They are then to be dried with absorbent cotton.

There is a great advantage in using this remedy in children; it greatly lessens the pain of the treatment. It is also of special value where ointments of all kinds produce more or less irritation, and sometimes cause an aggravation of the symptoms. S. C. Ayres (Cincinnati Lancet-Clinic, Oct. 23, '97).

CARCINOMA.

Pathology.—Out of eleven cases of carcinoma of the penis, in ten the type was a squamous epithelioma, resembling carcinoma of the lip. The commonest

point of origin was the dorsal aspect of the glans in the region of the corona. The existence of psoriasis præputialis (as described by Schuchardt) was demonstrated in the tissues surrounding the growth. Carcinoma extends along the lymphatic vessels on the dorsum of the penis, through the corpora cavernosa and into the glans. The dense fibrous capsule of the corpora cavernosa retards the progress. The urethra itself is involved in the last stages. Thomson (British Medical Journal, Dec. 25, '97).

CROUPOUS PNEUMONIA.

Symptoms.—Statistics of 150 cases. Of these, 80 per cent. presented the characteristic chill, fever, and other symptoms, the disease lasting from 6 to 11 days. The right lung was involved in 60 per cent., the left in 24 per cent. of the cases: both lungs in 16 per cent. In 12 the apex was involved, but in these no cerebral symptoms were present. The initial chill was absent in 14 per cent. of cases occurring in adults. In 3 cases in old subjects the temperature remained low, never rising above 100.1°. In 3 cases sudden death occurred, probably due to the action of the toxins upon the heart. Leucocytosis was found in 22 of 30 cases, a marked increase occurring immediately before the crisis; in the cases examined within 36 hours after the crisis there was no further evidence of leucocytosis. Elsner (Medical News, Jan. 8, '98).

DISINFECTION.

Formalin pastils employed as recommended by the Fabrik Schering, while sufficient to kill staphylococci, diphtheria bacilli, bacilli prodigiosi, and typhoid bacilli, do not affect the spores of anthrax bacilli and of bacillus subtilis and the bacterium coli. They are, therefore, not to be relied upon if thorough disinfection is desired. Gemund (Münchener medicinische Wochenschrift, Dec. 14, '97).

DISLOCATION OF THE CLAVICLE.

Treatment.—Recurrence of dislocation of the acromion end of the clavicle may be prevented by passing a two-inch strap over the shoulder and under the elbow of the affected side. This being tightly buckled, the arm is firmly secured by a retention-bandage. T. L. Rhoads (Annals of Surgery, Jan., '98).

FILARIA OZZARDI.

A new species of filaria found in the blood of aboriginal Guiana Indians. Out of 63 Indians living in the interior, minute filariæ found in 27. One variety sharp-tailed and without a sheath; the other blunt-tailed and resembling the filaria perstans of West Africa. Manson (British Medical Journal, Dec. 25, '97).

HODGKIN'S DISEASE.

Treatment. — Well-marked case of Hodgkin's disease, erratic temperature, varying from normal to 102.5°. Patient put on the usual arsenical treatment, beginning with 2 minims thrice daily, and gradually increasing the dose until she was taking 7 minims, three times a day, of Fowler's solution; but in spite of this she steadily and rapidly got worse, till at the end of five weeks she was a perfect skeleton, profoundly anæmic, sleepless, and the group of glands affected so agglutinated that outlines of single glands were quite obliterated. The spleen was enlarged, temperature was almost constantly about 100°, and her digestion failed completely. The case seemed rapidly moving toward a fatal termination.

Although bone-marrow tabloids had previously been tried in a case of the same disease in an adult without the smallest benefit, they were used in this case, beginning with 1 thrice daily. But the third day vomiting and diarrhœa had ceased and the temperature was normal. This improvement steadily continued. The number of tabloids taken was gradually increased, till at the end of a fortnight she was taking six in the day. After two months she was apparently in good health, although the submaxillary and one of the cervical glands were still large. The tabloids were finally stopped. A fortnight afterward she was once more somewhat anæmic, and with the glands, which had subsided to normal, appreciably enlarged. The tabloids were resumed, three a day; she still continues to take the same dose, and is now a plump, healthy child; but she still presents slight enlargement of the submaxillary and one cervical gland. J. D. L. Macalister (British Medical Journal, Nov. 13, '97).

HYSTERICAL ANOREXIA.

Pathology.—Case of hysterical anorexia in which, while there was no evidence of visceral disease and no sugar in the urine, the breath smelled of acetone, and the urine gave a most marked reaction of aceto-acetic acid. There was vomiting, and the vomit also contained acetone. In the first, or comparatively fasting, period, acetone, aceto-acetic acid, oxybutyric acid, and ammonia were found. The amount of urine was small, and hence a considerable excretion of acetone occurred through the lungs. With sufficient nutrition the smell of acetone in the breath, the reaction with ferric chloride in the urine, and the increased ammonia excretion disappeared. Nebelthau (Centralblatt für innere Medicin, Sept. 25, '97).

IMMUNITY.

The phagocytic power of leucocytes is unimportant; but these bodies probably secrete substances that destroy bacteria or their toxins and stimulate greater resistance on the part of the leucocytes and tissues. Thompson (Medical Record, Jan. 8, '98).

INDICANURIA.

Pathology.—The introduction of large numbers of colon bacilli into the intestines increases the indican and the ethereal sulphates of the urine. The introduction of large numbers of the proteus vulgaris may increase the ethereal sulphates, but not perceptibly. The introduction of the lactic-acid bacillus may reduce markedly the indican and ethereal sulphates. Herter (British Medical Journal, Dec. 25, '97).

INEBRIETY.

Pathology.—Statistics and clinical studies of cases make it clear beyond all doubt that inebriety is insanity, obscure and masked, starting from the same range of physical causes, following the same lines of progress, and curable in substantially the same way. T. D. Crothers (British Medical Journal, Sept. 25, '97).

LIVER, RUPTURE OF THE.

Pathology.—Case of rupture of the liver with operation and recovery. The kick caused a rupture of the liver on its upper (diaphragmatic) surface; through this rupture bile and blood slowly effused, but they were shut off from the peritoneum by adhesions, which developed rapidly before effusion had become great in amount. The wound on the

surface of the liver healed, but a cavity was left in the substance of the organ into which the torn bile-ducts poured their contents. Some of the bile that had escaped through the tear in the surface of the liver found its way through the diaphragm into the right pleura and gave rise to a pleurisy with effusion. There were thus three separate collections of fluid: 1. In the right pleura. 2. In a space formed between the diaphragm, the convex surface of the liver, and the anterior abdominal wall. This commenced to form immediately after the accident, and probably did not increase in amount after the first twenty-four hours. 3. In a cavity within the liver. This last collection, no doubt, went on slowly increasing until it was evacuated. W. Moore (Lancet, Sept. 18, '97).

Treatment.—A jet of steam to control hæmorrhage from the contused liver or omentum, first recommended by Sneguireff, has antiseptic as well as hæmostatic virtues. When the tampon is employed, the surrounding peritoneal cavity should be shut off by a few sutures. Doyen (Le Progrès Médical, Oct. 30, '97).

LOCOMOTOR ATAXY.

Pathology.—The prevailing opinion is that the disease is primarily and simultaneously manifested in the fibrils conducting sensory impulses from the muscles, and secondly in those of the medulla at the upper end of the columns of Goll and Burdach. As a result of inherited or acquired tendencies or of the action of toxins (generally syphilis) the nervous system is reduced in vitality. In some sensory neurons the impairment is greater than in others, or the resistance of the tissues less, and in these the disease starts spreading to other regions. The prognosis not so unfavorable as generally believed. Langdon (Medical Record, Jan. 8, '97).

OBESITY.

Treatment.—Tabloids of the whole gland substance disagreed in some instances, owing, no doubt, to the fatty matter they contain. Colloid tablets not prepared according to the method advocated by Dr. Hutchinson were found decidedly disappointing. Of the three sorts of tabloids used, those prepared according to Dr. Hutchinson's process were found to be the most efficacious. P. Jervis (British Medical Journal, Oct. 2, '97).

PERTUSSIS.

Bacilli found in 1894 in the sputum, resembling those of influenza and usually associated endwise and in pairs. Occasionally they formed long chains, simulating a continuous thread. The same were recently described by Czaplewski and Hensel. Carl Spengler (Deutsche medicinische Wochenschrift, Dec. 23, '97).

THYROID EXTRACT.

Physiological Action.—The thyroid extract lowers the blood-pressure, also the heart-beat. This lowering of the heart-beat ensues when the vagi are cut or when their peripheral ends are paralyzed by atropine. It is probably that the drug acts upon the heart itself, and thus lowers the cardiac beat. The blood-pressure fall is not due to a paralysis of the main vasomotor centre, for the arterial tension falls just as readily when this centre is cut off by a section of cord in the neck.

Thyroid powder, when given subcutaneously, also produces a rise of temperature. It is a pyrogenic agent. This

action of the thyroid shows that we should be careful in its administration to persons affected with heart disease. Isaac Ott (Medical Bulletin, Oct., '97).

TUBERCULOSIS OF THE LARYNX.

Treatment.—Guaiacol found very satisfactory in seven cases, six of which showed marked pulmonary complications. After thoroughly cleansing the larynx with an antiseptic spray, particularly with mixtures of guaiacol in castor-oil, the larynx is cocainized and the needle of a submucous syringe, guided by a laryngeal mirror, inserted in the desired place. One minim of the guaiacol is then injected into the floor of the ulcer or into the tuberculous infiltration. Donelan (Lancet, Dec. 25, '97).

TUBERCULOSIS OF THE LUNGS.

Etiology.—Pulmonary tuberculosis is most frequent among females, because, as compared to males, they lead chiefly an in-door life. While tuberculosis is an infectious disease, no evidence has ever been presented that tends to show that such infection ever occurs by exposure in the open air; to the contrary, there is abundant evidence showing that infection is of very common occurrence from in-door exposure. Abbott (Boston Medical and Surgical Journal, Jan. 6, '98).

Diagnosis.—Tuberculosis is present in many cases that are not diagnosticated, and to this fact are due many of the deaths of small children from inanition. A case may be considered as tuberculosis when there is slight dullness, prolonged expiratory murmur, and increased vocal resonance at either apex, low weight, rapid pulse, and a family history of tuberculosis. Gage (Boston Medical and Surgical Journal, Jan. 6, '98).

Treatment. — Results obtained in twenty-two cases treated by cinnamic acid. Attempts to kill the bacilli through the respiratory tract have ended in failure. Restitution and gradual recovery is only possible in the very earliest stages, when diagnosis is very uncertain. This result can only be obtained by exciting artificially an inflammation around the tubercular nodule, which may end in cicatrization. As shown by Landerer, cinnamic acid and its salts can give rise to an increase of white blood-corpuscles, which reaches its height in eight hours, and subsides in about twenty-four. An aseptic inflammation is thus brought about around the tubercles: dilatation of the blood-vessels, emigration of leucocytes, and serous infiltration being induced. In about three weeks a wall of leucocytes is formed around the tubercle, and shuts it off. The leucocytes then penetrate the tubercular mass—small blood-vessels and connective tissue then form, and constriction follows. Calcification may also occur. Cinnamic acid is most conveniently injected into the gluteal region. He begins with 0.1 of a 5-per-cent. emulsion, and gradually raises it to 1.0, where he stops. Of the 22 cases, 6 were cured, 12 were improved, 1 died, and 3 were not affected in any way. The treatment extended over a period of five or six months. The method is perfectly safe, but Heusser recognizes that cinnamic acid is not a specific against tubercle. Heusser (Therapeutische Monatshefte, Sept., '97).

TYPHOID FEVER.

Pathology.—Case of typhoid fever showing no lesions of the intestines and in which the bacillus was isolated from the spleen. The disease began like typhoid fever and there was moderate diarrhœa. The face was flushed, the tongue coated and tremulous, the pulse

regular, but rapid, and the patient apathetic. Abdominal tympanites and a few rose spots were noted. The temperature rose to 104.2°. Death took place on the seventh day. Hodenpyl (British Medical Journal, Dec. 25, '97).

Diagnosis.—Seventeen cases resembling typhoid fever in which the "Widal" reaction was absent. They occurred during the summer months. The temperature rose rapidly to 104° or 105° within five days. The tongue was coated, moist, and white; the abdomen was slightly distended, with pain and little tenderness. The spleen was enlarged and the bowels generally constipated; the pulse was full and rapid, and often dicrotic. After 10 to 12 days temperature usually fell abruptly. No leucocytosis or malarial parasites. Brill (New York Medical Journal, Jan. 8, '98).

[Our next issue will contain a general review of the literature of the year upon this subject.]

Book Reviews.

Diseases of the Ear, Nose, and Throat and Their Accessory Cavities. A Condensed Text-book. Illustrated with One Hundred Colored Lithographs and One Hundred and Sixty-eight Additional Illustrations. By Seth Scott Bishop, M.D., LL.D., Professor in the Chicago Post-graduate Medical School and Hospital; Surgeon to the Illinois Charitable Eye and Ear Infirmary; etc. Philadelphia, New York, Chicago: The F. A. Davis Company, 1897.

This work was designed, first, to help students in preparing for their degree; second, for those progressive practitioners who wish to acquire the proficiency necessary to properly treat those patients who are unable to visit specialists; and, third, for those who are gradually exchanging their general practice for special work in these branches. The subjects are simplified and condensed so as to make the work a key, or introduction, to the exhaustive treatises already in the field. The place of the latter it is not expected to fill, for Dr. Bishop's work was not intended primarily for specialists. Yet the author expresses the hope that it may modestly serve their interests in bringing information on the subjects down to the present date, and as a work of ready reference. With this modest aim the author gives us an excellent work, fulfilling precisely the conditions outlined. While clinical data are plentiful, pathology, and especially bacteriology, are merely mentioned—just enough to give the reader an insight into the subjective etiology of each affection. When we consider how much is included between the covers of this volume, we can but conclude that it will prove a most satisfactory acquisition to any physician or student who may conclude to purchase it.

A Text-book of the Practice of Medicine. Illustrated. By James M. Anders, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College of Philadelphia; Attending Physician to the Medico-Chirurgical and Samaritan Hospitals, Philadelphia; etc. Philadelphia: W. B. Saunders, 1897.

The author states in his preface that the above work is meant to introduce the student to the present state of our knowledge of the practice of medicine in general and of the diagnosis, differential diagnosis, and treatment of disease in particular. This may be said to have been faithfully carried out. Indeed, although many books

on the practice of medicine are published, few show as much evidence of a careful search into the literature of each subject as this one does. A few departures from the arrangement generally adopted are to be noted. Bacteriology is prominently mentioned under "Special Etiology." The differential diagnosis has in many instances been tabulated. The formulæ introduced into the text have borne the test of the author's experience and are thus all the more valuable. Altogether, the book may be recommended as an excellent one and fully entitled to the confidence of practitioners and students.

Manual of Static Electricity in X-ray and Therapeutic Uses. Illustrated. By S. H. Monell, M.D., Chief Instructor in the Brooklyn Post-graduate School of Clinical Electro-therapeutics and Roentgen Photography, etc. New York: William Beverly Harrison, 1897.

A work on medical electricity giving special attention to static machines and their use meets a want, and the work before us is eminently fitted to satisfy the most exacting reader. The demonstration that the static machine affords the best means of exciting X-rays within a Crookes tube gives it now an extraordinary interest to the physician and surgeon, and places it in the front rank of high potential apparatus.

The author aims to present in a concise and intelligible form the essential facts relating to static electricity and its successful application to the treatment of disease. He describes how to care for and operate the best type of modern static machine and sets forth the therapeutic indications for the various methods of administering the currents which it produces. Lengthy descriptions of obsolete instruments are omitted in favor of the fullest practical account of clinical details. The chapter upon X-ray methods describes in full the necessary static technique. The therapeutic section of the book presents the clinical experience of the author and others and describes methods of treatment with painstaking exactness.

As the author correctly states, the static machine, in spite of its antiquity as a medical apparatus, is but on the threshold of its real introduction to the profession at large. But little has been made to develop its literature and spread abroad the knowledge of its usefulness.

We can highly commend this work and express the hope that it will secure the patronage it deserves.

Eye-strain in Health and Disease. With Special Reference to the Amelioration or Cure of Chronic Nervous Derangements Without the Aid of Drugs. Illustrated with Thirty-eight Wood-engravings. By Ambrose L. Ranney, A.M., M.D., Author of "Lectures on Nervous Diseases," "The Applied Anatomy of the Nervous System," etc. Philadelphia, New York, Chicago: The F. A. Davis Company, 1897.

This volume comprises the substance of several monographs that the author has published from time to time during the past ten years in medical journals, with the addition of considerable new matter. He has added, also, the histories of many typical cases in detail with the view of illustrating some remarkable results of eye-treatment alone upon various forms of nervous disturbances that have persisted for years and failed to yield to any form of treatment.

Many of the histories published in this volume are given with sufficient completeness to shed much light upon the methods employed in each case, as well to demonstrate the results obtained by the use of glasses and graduated tenotomies upon some of the ocular muscles. To the oculist the technical portion of some of these records will doubtless prove of greater interest than to the general practitioner

in medicine; but the author trusts that the labor involved in preparing such histories for the press from scattered office memoranda will not be deemed by any reader as misspent.

The views which the author supported in his work on nervous diseases—relative to the effects of eye-strain upon the development of headache, neuralgia, sleeplessness, chorea, epilepsy, nervous prostration, and insanity—are reiterated here with strong clinical evidence to sustain them. Time has but strengthened the author's early convictions, while many of those who were antagonistic to these views years ago are now enthusiastic in their support.

The subjects treated in this volume are: "The Bearings of Eye-strain Upon the Duration of Human Life"; "The Tests of Vision and Ocular Movements"; "Eye-strain as a Cause of Headache and Neuralgia"; "The Eye-treatment of St. Vitus's Dance (Chorea)"; "Sleeplessness: Some Facts Relating to its Causes and Cure"; "Eye-strain as a Cause of Chronic Gastric and Digestive Disturbances"; "The Eye-treatment of Epileptics"; "The Eye-treatment of Nervous Prostration and Insanity"; "The Surgical Treatment of Anomalies of the Ocular Muscles (Heterophoria)"; "Eye-strain as a Cause of Abnormal Eye-conditions."

The author, in his preface, states that he does not expect that his critics will accept all of his conclusions, but asks that the work be read without prejudice prior to criticism and that the reviews be dispassionate.

A perusal of the book at once convinces the reader of Dr. Ranney's sincerity, and, this being the case, the results shown can but admit of the conclusion that the relation between eye-strain and functional neuroses should be closely studied by all who would leave no stone unturned in their desire to satisfactorily treat their cases. Dr. Ranney's book gives a better review of the entire subject than any work published, and should be in the hands of every practitioner.

New Books and Monographs Received.

The editor desires to acknowledge, with thanks, the receipt of the following monographs, etc.:—

Transillumination in Diseases of the Nose, Throat, and Ear. By W. Scheppegrell, M.D., New Orleans, 1897.——The Surgical Treatment of Ano-Rectal Imperforation in the Light of Modern Operative Procedures. By Rudolph Matas, M.D., New Orleans, 1897.——The Histological Basis of the Neuron Theory. By David I. Wolfstein, M.D., Cincinnati, 1897.——The Treatment of Laryngeal Tuberculosis with Cupric Interstitial Cataphoresis, with Report of Cases. The Advantages of Direct Laryngoscopy in this Method. By W. Scheppegrell, M.D., New Orleans, 1897.——Case of Mastoiditis Complicating Purulent Otitis Media Cured by Enlarging the Drum Perforation and Syringing the Tympanitic Cavity. W. Scheppegrell, M.D., New Orleans, 1897.——The Progress of Laryngology. W. Scheppegrell, M.D., New Orleans, 1897.——Progress and Problems of Medicine To-day. By John V. Shoemaker, M.D., Philadelphia, 1897.——The Causation of Influenza and Allied Diseases, with Suggestions for their Prevention. By H. B. Baker, M.D., Lansing, 1894.——Papillary Œdematous Nasal Polypi and their Relation to Adenomata. By J. Wright, M.D., Brooklyn, 1897.——Notes on the Examination of Air, Water, and Food. Hygienic Laboratory of the Medico-Chirurgical College of Philadelphia, 1898.——Some Observations on the Surgery of the Gall-tracts, with Report of Cases. Is the Gall-bladder a Rudimentary and Useless Organ? By J. E. Allaben, M.D., Rockford, Ill., 1897.——Some Thoughts upon Alcoholism. By G. H. McMichael, M.D., Buffalo, 1897.

[End of the Editorial Department of the Monthly Cyclopædia for January, 1898.]

NOTES AND COMMENTS.

Hot-Air Baths.—G. N. Blech, A.B., M.D., of Detroit, in his clinical report published in the Journal of the American Medical Association of Oct. 9, '97, reports the following cases successfully treated by him with the Hot-Air Arm- and Leg- bath, made by Frank S. Betz & Co., of 78 State Street, Chicago, Ill.:—

Mr. A. F., aged 36. Had rheumatism two years. May 11, duration, 18 minutes; May 12, duration, 19 minutes; May 13, duration, 21 minutes; May 14, duration, 24 minutes; May 15, duration, 26 minutes; May 16, duration, 21 minutes; May 19, duration, 30 minutes.

Mrs. A. F., aged 36. Had rheumatism five years. May 13, duration, 18 minutes; May 14, duration, 20 minutes; May 15, duration, 22 minutes; May 16, duration, 24 minutes; May 17, duration, 26 minutes; May 19, duration, 29 minutes; May 21, duration, 22 minutes.

Mr. E. C., aged 29. Polyarthritis chronica, two and one-half years. May 12, duration, 15 minutes; May 13, duration, 17 minutes; May 14, duration, 22 minutes; May 16, duration, 29 minutes; May 18, duration, 30 minutes.

Mr. N. B., chronic muscular rheumatism, three and one-half years. May 12, duration, 10 minutes; May 13, duration, 12 minutes; May 15, duration, 15 minutes; May 16, duration, 18 minutes; May 21, duration, 22 minutes; May 22, duration, 29 minutes; May 23, duration, 30 minutes.

Miss E. T. My assistant, aged 24. Chronic rheumatism of muscles of arms, one and one-half years. May 11, dura-

Notes and Comments (continued).

tion, 18 minutes; temperature, 206° F.; May 12, duration, 19 minutes; temperature, 209° F.; May 13, duration, 20 minutes; temperature, 211° F.; May 14, duration, 22 minutes; temperature, 215° F.; May 17, duration, 30 minutes; temperature, 220° F.

Mrs. F. D. Polyarthritis chronica six years, aged 38. May 10, duration, 15 minutes; temperature, 201° F.; May 11, duration, 20 minutes; temperature, 202° F.; May 12, duration, 19 minutes; temperature, 205° F.; May 14, duration, 21 minutes; temperature, 209° F.; May 19, duration, 24 minutes; temperature, 212° F.; May 21, duration, 26 minutes; temperature, 217° F.

Dr. G. B. Writer, polyarthritis subacuta; pleurodynia a few weeks. May 2, duration, 20 minutes; temperature, 205° F.; May 3, duration, 22 minutes; temperature, 208° F.; May 4, duration, 25 minutes; temperature, 204° F.; May 6, duration, 30 minutes; temperature, 221° F.

Their advertisement appears in this journal.

Notes and Comments (continued).

in New York is at 5 Bowling Green, and their Boston office is at 201 Washington Street, where all information desirable can be obtained. Communications addressed to the passenger department at either of these points will bring in return a handsome little booklet, together with such other advertising matter as will, no doubt, prove of interest to parties desiring to take an ideal tour.

Continued Good Results.—The January, 1894, issue of The Quarterly Journal of Inebriety, published under the auspices of The American Association for the Study and Cure of Inebriates, Hartford, Conn., says, through its able editor, T. D. Crothers, A.M., M.D.: "Antikamnia is one of the best remedies in influenza, and in many instances is very valuable as a mild narcotic in neuralgias from alcohol and opium excesses. We

Notes and Comments (continued).

have used it with best results." In a letter of more recent date to The Antikamnia Chemical Company, Dr. Crothers writes: "Antikamnia continues to improve in value and usefulness, and we are using it freely." The Edinburgh Medical Journal, Scotland, says, regarding antikamnia: "In doses of 3 to 10 grains it appears to act as a speedy and effective antipyretic and analgesic." The Medical Annual, London, England, says: "Our attention was first called to this analgesic by an American physician whom we saw in consultation regarding one of his patients who suffered from locomotor ataxy. He told us that nothing had relieved the lightning pains so well as antikamnia, which at that time was practically unknown in England. We have since used it repeatedly for the purpose of removing pain, with most satisfactory results. The average dose is only 5 grains, which may be repeated without fear of unpleasant symptoms."

Confidence Well Placed.—You can be assured that I will prescribe the imperial granum, whenever there is an indication for a prepared food, because I had sufficient confidence in it to give it to my own child, and it agreed with him perfectly, and he has increased in size and weight to an astonishing degree. ——M.D., December 6, 1897.

Physicians can obtain samples of this celebrated prepared food free, charges prepaid, on application.

Schering's Special Preparations.—Salicylic acid: A chemically-pure synthetic salicylic acid has identical curative and by-effects with that made from the oil of wintergreen, since both are identical substances.

Guaiacol carbonate: Accumulated experience demonstrates the superiority of this preparation as an intestinal antiseptic in typhoid fever and tuberculosis. Silver salts (Credé) as surgical antiseptics. Dr. B. Credé, of Dresden, has shown the value of the lactate and citrate of silver as applications to wounds and ulcers and for cleansing cavities. Dr. O. Weiler, of Berlin, has successfully used citrate-of-silver solution in acute and chronic gonorrhœa.

Glutol (Schleich): Glutol, or formalin-gelatin, is an odorless, non-poisonous, antiseptic powder for the treatment of wounds.

Apolysin: Apolysin is a coal-tar derivative closely related to citric acid and almost as innocuous as that drug. It is useful in fevers, influenza, rheumatism, neuralgia, headache, etc.

Schering's glycerophosphates: These preparations are of value in all cases where it is necessary to improve the nutrition and stimulate the activity of the nervous system, as neurasthenia, ataxia, paralysis, chlorosis, anæmia, etc. Eucaine hydrochlorate: This is a new local anæsthetic which does not affect the heart. Efficacious in ophthalmic and minor surgery, dentistry, etc.

Ample and reliable literature concerning the above and other preparations can be had upon application to Schering & Glatz, 55 Maiden Lane, New York.

Unguentum Resinol.—Resinol is described as a combination of the active principle of *Juniperus oxycedrus* and a synthetical derivative of the coal-tar series. It is a non-irritant substance that can be used upon the skin of infants and upon mucous membranes. The ointment of resinol has been applied with advantage in pruritus, hæmorrhoids ac-

Notes and Comments (continued).

companied by itching, catarrh of the nasal passages, inflammation of the cervix uteri, and in many diseases of the skin. It is also employed as a dressing in burns, boils, and carbuncles.

Samples and descriptive literature can be obtained by applying to the Resinol Chemical Company, Baltimore, Md.

Chloralamid.—Chloralamid is a combination of chloral anhydride and formamide. It has no local irritant properties and is free from deleterious influence upon the digestive processes. The presence of formamide counteracts the depressing effect of chloral upon the heart. Chloralamid is an excellent hypnotic remedy and, in the judgment of Dr. Reynold W. Wilcox, is the safest of its class. Its action is a prolonged one by reason of its comparative insolubility. It is best given in the form of an elixir containing 30 grains to the ounce and furnished by Lehn and Fink, of New York.

Southern Pines, N. C.—This salubrious winter resort is situated 68 miles south of Raleigh, in the heart of the long-leaf-pine belt; 600 feet above sea-level. The soil is sandy and porous, the climate is mild, and the air impregnated with emanations from the pine-trees. The district is of distinct benefit to those suffering from disease of the lungs, throat, or kidneys, rheumatism, neuralgia, malaria, etc. The Piney Woods Inn, half a mile from the village, is a new and spacious structure, containing all the modern conveniences. Six miles west of Southern Pines, connected by electric cars, is the beautiful new village of Pinehurst: a very attractive place to visitors.

Chronic Malaria.—Arsenic, especially Fowler's solution, has been prescribed for years and good effects were observed; the only trouble with this drug is that it is not tolerated by every patient, frequently, even when small doses are given, showing full systemic effects, such as cramps, diarrhœa, vomiting, and other certain nervous phenomena. Iron sometimes is useful, perhaps because it increases the number of red blood-corpuscles, making it possible to eliminate the malarial poison from the system. Mercury has a great many advocates and we think it is indicated because of its antiseptic and alterative properties. All three ingredients are represented in Henry's Three Chlorides, and prepared in such a manner that neither

Notes and Comments (continued).

of the ingredients will cause any of the ill-effects that Fowler's solution, iron, or mercury in ordinary forms are apt to cause.

Influenza and Heavy Colds.—Those who have suffered from influenza are left with a special susceptibility to taking cold upon exposure. In such cases, says the Massachusetts Medical Journal, "the advice of Professor Tyson, of the University of Pennsylvania, is good: 'Treat every case as though it were going to be a serious one, and order him to bed at once.' A speedy cure is possible in a few days in the majority of cases, if the latter course is adopted. The most of these cases of 'colds' appear in the form of an influenza, with aching of limbs, debility, and a slight rise in temperature. The indications for treatment are to relieve pain, sustain strength, and to reduce the fever. There is nothing that will accomplish these results better and quicker than the administration of quinacetine-sulphate in doses of from 5 to 10 grains every two or four hours, the larger dose being given when pain is a prominent symptom. This drug exerts a strong antipyretic action, allays nervous irritability, and acts quickly in reducing the abnormal temperature."

The Value of Pepto-mangan (Gude).—A pamphlet has been issued by the M. J. Breitenbach Company containing reprints of papers read by Dr. H. P. Loomis, of New York; Dr. Karl von Ruck, of Asheville, N. C., and Dr. Hugo

Notes and Comments (*continued*).

Summa, of St. Louis. The cover is illustrated by a reproduction of the celebrated painting by Gabriel Max, of Munich, entitled "The Anatomist."

Dr. Loomis, in his contribution, says, in part: "As early as 1838 Kugler recommended the manganese salts in scrofula, for he had noticed in chlorine bleaching establishments that those who handled the manganese salts enjoyed an immunity from diseases of the skin, bones, or glands. For a long time, and by a number of observers, manganese has been recommended in anæmia and chlorosis, as it has been found by analyses of blood in these conditions that the manganese is diminished in some cases proportionately more than the iron.

"About a year ago my attention was called to a new combination of iron and manganese, which was being extensively used in Germany. Extraordinary results were claimed for the preparation in chlorosis and anæmia by Professor Ruehle, of Bonn, and Dr. Ascher, of Hamburg. I gave the preparation a careful trial, and the results obtained were exceedingly satisfactory. Believing, however, that the only accurate test of improvement in such conditions as anæmia is an increase in the amount of hæmoglobin and the number of red blood-corpuscles, I made a series of examinations in regard to this point. In most of the cases in which the preparation was given the blood was examined by the Thoma-Zeiss apparatus before, during, and after its use had been stopped.

"To thoroughly estimate the advantages of the preparation eight persons with marked anæmia were selected and careful notes of the cases taken while under treatment. No other medicine was given. In some of the cases the results obtained were much better than had previously been obtained with other preparations of iron.

"In most cases the pepto-mangan (Gude) had no constipating effect. Of the eight cases in which accurate notes were kept, all showed a marked improvement both in the increase in the amount of hæmoglobin as well as increase in the number of red blood-corpuscles. The average increase of the hæmoglobin was 2.2 per cent., and of the red blood-corpuscles 1,258,000."

The Lofoten Islands.—Under the title of "The Lofoten Islands and their Principal Product" Parke, Davis & Co. have issued a pretty and interesting illustrated pamphlet. The principal product of the Lofoten Islands is codliver-oil. The

Notes and Comments (continued).

islands lie between 67° and 69° N. In this locality the deep bed of the Atlantic encroaches on the comparatively shallow bank which stretches along the coast, and the current which enters the submerged bays is laden with food. To this point come in vast numbers the cod to feed and spawn. The fish arrive in January, and at this time also there begins to centre at the Lofoten Islands countless processions of men by land and boats by sea. About 30,000 men are here collected together for two or three months for the purpose of catching cod. Practically no other fish are in the waters at this time. The cod has obtained absolute possession and are in their best condition. The cod are caught by net, long line, and hand line. The fatness, or oil-yielding properties, of the livers varies greatly from year to year. One year the livers of 200 fish will make a barrel of oil; another year it may require from 400 to 500 fish to make that amount.

The method of "trying" out the oil from the livers has much to do with its palatability and also with its digestibility. The primitive method of expression is really no "method" at all. In order to obtain an improved Lofoten cod-liver-oil, Parke, Davis & Co. maintain at this station an oil-refining factory on board a vessel specially equipped for this purpose. To this floating factory are brought every day fresh, clean, and select livers. Here, after being subjected to a mincing process, they are put into double-jacketed steam kettles for "rendering," or "trying." This operation is completed and the oil stored for final transshipment before the fish from which the livers were obtained have been

Notes and Comments (continued).

a day out of their native element. In this improved Lofoten codliver-oil the serious objection of nauseating taste and almost certain rancidity is overcome.

Parke, Davis & Co. will mail a copy of this instructive pamphlet to any reader of THE MONTHLY CYCLOPÆDIA OF PRACTICAL MEDICINE AND UNIVERSAL MEDICAL JOURNAL who makes the request.

Heroic Effort.—Dr. George E. Hefftner, of Pleasant Avenue and One Hundred and Twenty-first Street, New York City, recently displayed great heroism, as well as presence of mind, in the case of a poor woman, who, in the extreme grief for the death of her child, took a dose of poison. The doctor had been hurriedly called to attend the child, and returned to his office to obtain medicine. In the meantime the child died. The grief-stricken mother, while the doctor was attending the dead baby, swallowed a dose of Paris green; the doctor, turning around, grasped the situation at once, and hastily threw the woman over his shoulder and ran with her to the hospital, knowing if he waited for an ambulance the delay would be fatal. The stomach-pump was immediately applied, and while the woman is in a very critical state, there is great likelihood of her recovery, due only to the heroic efforts of Dr. George E. Hefftner, who received a liberal amount of compliments from the doctors at the hospital when they learned how the patient arrived.

"Hugh Wynne," Free Quaker, in two volumes. By S. Weir Mitchell, M.D., LL.D. (Harvard and Edinburgh), published by the Century Company, New York City. In this work an American physician, and one who stands in the front rank in his profession, has written what, in the opinion of many critics, is one of the greatest books of our time. The Dial, of Chicago, calls it "the most important novel of the American Revolution thus far written." The Outlook says: "If 'Hugh Wynne' is not the great American novel, it, at least, comes closer to it than any novel of the decade." After a successful serial course in The Century Magazine, the book "Hugh Wynne," issued in October last, is now being printed for the seventh time in an edition which will bring it up to the fiftieth thousand,—a record almost without precedent among American publications.

Medical Demography.—The celebrated scientist, Prof. O. C. Marsh, of Yale University, has made an extensive series of comparisons between the brains of ancient and modern animals and their relations to the human brain. They seem to prove that the struggle for existence has really been, from the first, a battle of brains. The conclusion is therefore reached that the question of the future domination of the world is a question of brain. Prof. Marsh's conclusions are far more flattering to the Japanese people than to the Anglo-Saxon or any other. As long as fifteen years ago, the professor states, he reached conclusions, which satisfied him that the Japanese were destined to come forward among the peoples of the earth as a great power, and perhaps an overwhelming force. Considering the wonderful advance that has been made by this people during those fifteen years, Prof. Marsh's work would seem to stand almost in the light of a prophecy. The investigations show that the older the species, the smaller in proportion the

Rubaivat of "Doc. Sifers."—By James Whitcomb Riley, published by the Century Co., New York City. In this work the popular Hoosier poet seems to have done for the American country doctor what Ian Maclaren has done for the Scotch physician of kindly memory, whose story has had so many thousands of readers in this country within the last two years.

TELEPHONE NO. 14.

DRS. CROSBY & CORSON,
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ATLANTIC CITY, N. J., Dec. 20, 1897

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Notes and Comments (continued).

brain; that the period of great bulk was the period of relatively small brain power; that as bulk and muscle has decreased brain power has increased; that the comparative brain power of the miocene period exceeded that of the eccene, continued to increase in the pliocene period and has steadily developed in more recent times. Thus it was that man under this inexorable rule of nature gradually, but inevitably, conquered all else on the globe.

The evolution of the human brain went on; each successive dominating race being characterized by a still larger brain, until, in the modern man, the cerebrum overshadows all other parts of the brain combined; the senses of sight, hearing and smell, properties of instinct only, and common to the lower animals, have deteriorated in man, as compared with many of the lower animals, since man's development has been mainly intellectual. Thus, ages ago man ceased to have rivals among any other species, and the war of the human races began; the history of the old was repeated in the new. In each struggle between human races the greater brain race has overcome the smaller, even though the latter had the greater brute force. In later ages the Caucasian race, with its larger brain, has dominated the earth, but now a new people arises in Japan with a brain of greater average weight than even the Caucasian, and to prove the truth of the prophecy Japan is coming forward in the race for power and domination with giant strides.

Does not all this point out a new field to be carefully considered by medical men, upon whose attention and influence, perhaps, the welfare of the race depends more largely than upon that of any other profession? Should not the study of heredity, of the influence of foods, of environment and of all social conditions that can influence the well-being and intellectual development of the race be made a part of the grand empire of medicine, which is to-day advancing with perhaps greater rapidity than any other science the world has ever seen, since, in this enlightened age, it avails itself of all discoveries and utilizes all other sciences in its grand battle to overcome the unhappy physical legacies of humanity?

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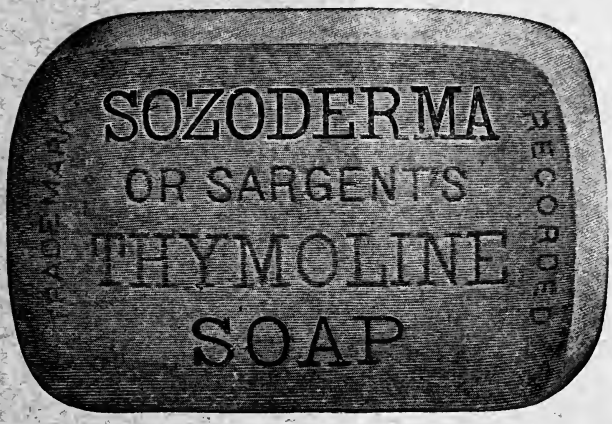

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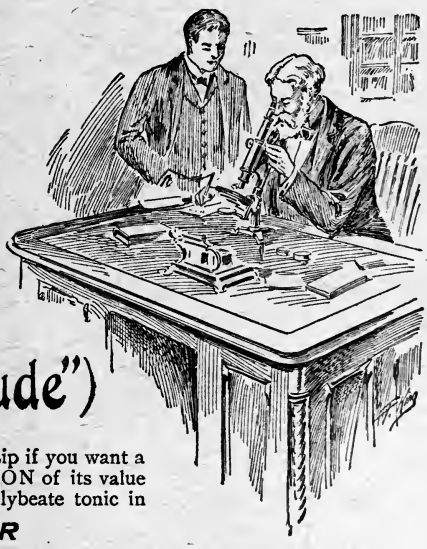

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In his exhaustive chapter on Tuberculosis, in *Wilson's* "American Text-Book of Applied Therapeutics," **Prof. James T. Whittaker,** of Cincinnati, compares the antipyretics at various stages of treatment, and always speaks most favorably of Lactophenin. Thus in mentioning methods for lowering the temperature (p. 376) he says that salol is safer than acetanilid, antipyrine or phenacetin, "but as it liberates carbolic acid in the intestine, it should not be given in any case of stasis of the kidney;" and then he adds: "Lactophenin in the same dosage (5 to 7 grains) is efficacious and free from danger." To quiet pain (p. 384) "sometimes due to a toxic neuralgia" salol is safer than either phenacetin or antipyrine (the latter, in large doses, depressing the heart), while Lactophenin is a perfectly safe drug in the same dose (5 grains every two hours)."

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